Supreme Court, U. S.
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IN THE

Supreme Court of the United States

October Term, 1977

No. 77-979

Appalachian Power Company,
Appellant,

v.

The Public Service Commission of West Virginia,
Appellee.

ON APPEAL FROM THE SUPREME COURT OF APPEALS OF WEST VIRGINIA

APPENDIX TO MOTION TO DISMISS OR AFFIRM AND TO BRIEF IN SUPPORT THEREOF

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STATE OF WEST VIRGINIA

At a Regular Term of the Supreme Court of Appeals continued and held at Charleston, Kanawha County, on the 10th day of October, 1977, the following order was made and entered, to-wit:

APPALACHIAN POWER COMPANY, a corporation
vs.
THE PUBLIC SERVICE COMMISSION OF WEST VIRGINIA

Upon an appeal from, suspension and review of the final order of the Public Service Commission of West Virginia made and entered on May 6, 1977, as revised, modified and affirmed by the Commission's Order issued on July 29, 1977.

The Court, having maturely considered the petition; amended petition; note of argument in support thereof; the record consisting of all papers, documents and evidence which were before the Public Service Commission at the hearing which resulted in the entry of the final order complained of; the statement of reasons for the entry of its order of the 6th day of May, 1977, as revised, modified and affirmed by the Commission's Order issued on July 29, 1977, filed herein by the respondent, Public Service Commission of West Virginia on October 3, 1977; and the oral argument of counsel on the 4th day of October, 1977, the date fixed by the Court for hearing upon the aforesaid petitions; is of opinion that the petitioner has not shown itself entitled to the relief prayed for in its said petition. It is therefore considered and ordered that the prayer of the petition for an appeal from, suspension and review, in this proceeding, be, and the same is hereby, denied. Justice Miller would grant.

It is further ordered that leave be, and the same is hereby, granted to the Public Service Commission of West

Virginia to withdraw from the office of the Clerk of this Court, the record consisting of all papers, documents and evidence originally filed with the Public Service Commission of West Virginia.

A True Copy

Attest:

s/ GEORGE W. SINGLETON
Clerk Supreme Court of Appeals

PUBLIC SERVICE COMMISSION
OF WEST VIRGINIA
CHARLESTON

At a session of the PUBLIC SERVICE COMMISSION OF WEST VIRGINIA at the Capitol in the City of Charleston on the 6th day of May, 1977.

CASE No. 8182

APPALACHIAN POWER COMPANY, a corporation.

In the matter of increased
rates and charges.

PROCEDURE

On March 31, 1975, Appalachian Power Company, a corporation (hereinafter "Appalachian" or "company"), filed its tariff designated P.S.C. W. Va. No. 3, cancelling P.S.C. W. Va. No. 2, stating increased rates and charges and certain modified rate designs for furnishing electric service in the entire territory served by it in the State of West Virginia, to become effective May 1, 1975. This filing included accounting data required by our Tariff Rule 42 based on a calendar 1974 test year.

By order entered on April 4, 1975, Appalachian was made respondent to this proceeding and pending investigation, hearing and decision said revised tariff was suspended and the use of the rates and charges stated therein deferred until August 28, 1975. It was further ordered that if the case had not been finally decided at the expiration of the aforesaid suspension period, such rates and charges applied for could not be placed into effect until a bond in the amount of Thirty Million Six Hundred Thousand Dollars ($30,600,000) with interest thereon, be given and approved by the Commission.

By order entered on June 3, 1975, the matters involved herein were set for hearing in the Commission's Hearing Room at the Capitol in the City of Charleston on July 21, 1975, at 9:30 a.m., EDT, and the company was required to give proper notice to the public.

By order entered on August 18, 1975, the Commission set the interest rate on refunds secured by the bond at 7¾%.

Proper notice was given and hearings were held on the following dates: July 21, 27, and 30, 1975 (consolidated with Appalachian Cases Nos. 7083—Reopened, 8192 and 8235); August 5, 1975; January 12 and 13, April 21, 22 and 23; June 7; July 12 and 13; August 10, 11, 12 and 31, 1976.

At the various hearings herein the company was represented by Charles R. McElwee and Samuel M. Sugden, attorneys at law, and the company's testimony was adduced from sixteen witnesses. The staff was represented by E. Dandridge McDonald, attorney at law, Legal Division; George R. Heath, Laxmi N. Mehra, David Ellis, and Robert Stier, Division of Accounts, Finance and Rates; and C. William Wensyel, Division of Engineering. Three witnesses were presented by staff. Attorneys for various intervenors were: Robert R. Rodecker, representing Appalachian Research & Defense Fund, Inc., Mercer County Economic Opportunity Corporation, and McDowell County Consumer Action Council, Inc.; Vincent V. Chaney and Michael T. Chaney, representing the City of Charleston and the City of South Charleston; T. D. Kauffelt, representing FMC Corporation; and John C. Lobert and C. E. Goodwin, representing ACF Industries, Inc., American National Rubber Company, Houdaille Industries, Inc., Huntington Alloys, Inc., Chemetron Corporation and Owens-Illinois, Inc. Mrs. Lucille Gillespie appeared for the Kanawha Valley Baptist Association, Clendenin, West Virginia, as a protestant. There were many protests.

Two witnesses were presented by intervenor, FMC Corporation; one witness appeared on behalf of low-income intervenors; one witness appeared on behalf of Owens-Illinois and one on behalf of Huntington Alloys, Inc.

On January 9, 1976, Appalachian filed its "Application for Interim Amendment to Appalachian's W. Va. P.S.C.

Tariff No. 3" requesting authority to credit .25074¢ per kilowatt hour for all service from August 28, 1975, through July 31, 1976. The reduction by "Rider A Credit Surcharge" (Original Sheet No. 18) resulted from the company's assessment that the embedded fuel cost component in the proposed rates should be reduced from 123.5¢ per Mbtu to 105¢ per Mbtu, and the application recited that the refund would include interest at 7¾% until paid.

On January 13, 1976, the Commission entered an order approving the application upon the condition, agreed to by Appalachian at a hearing held the same day, that the reduction in rates would continue until further order of the Commission, and would not terminate automatically on July 31, 1976, as proposed in the application.

Certain demand, energy and revenue data requested during the sessions ended August 31, 1976, were filed subsequently. Briefs were filed as to many of the issues before us, with the Appalachian's reply brief filed November 9, 1976.

Preliminary Comment

Background—Perspective

Appalachian is the largest public utility regulated by this Commission in terms of revenues received from West Virginia citizens. It brings the blessings of electric service to over 336,810 residential, commercial, industrial and institutional (churches and schools) customers located in 21 counties in the southern half of West Virginia. In addition, Appalachian is one of the main sources of power generation and transmission for the American Electric Power System, of which it is an integral part. The AEP system directly serves over 6 million customets [sic] in the States of Indiana, Ohio, Kentucky, Tennessee, Michigan, Virginia and West Virginia. Appalachian serves over 656,000 customers at retail in Virginia and West Virginia

and supplies wholesale electric service both within and outside of its retail market areas directly and indirectly by bulk transmission or displacement. This is done not only through the integrated AEP system, but also through 26 major electric utility supply systems which make up the regional grid known as the ECAR (East Central Area Reliability) group and through system inter-connected, non-ECAR electric utilities (TVA, Carolina Power & Light, Duke Power, Commonwealth Edison, Illinois Power, Central Illinois Public Service Company).

Other than distribution facilities, most of Appalachian's construction of generation, transmission and other facilities is planned on an AEP *system* basis of need and ***not*** solely on the needs of Appalachian Power Company customers. In addition, the construction of facilities by Appalachian and the said ECAR and non-ECAR electric utilities are planned on a coordinated, timed basis. The advantages of a coordinated group of power systems to the assurance of adequate, reliable and continuous public service are well known. Not so well known, however, is the fact that coordinated, "power center" controls over interlaced electric systems owned and operated by scores of cooperating affiliated and non-affiliated companies having generation capabilities, makes the fair, just and reasonable assignment of cost responsibility to various jurisdictions and classes of service a monumental regulatory task.

Background—Recent orders

On January 31, 1975, this Commission issued a comprehensive order allowing Appalachian a partial increase of requested higher rates on and after July 29, 1971, and providing for refunds. Since that date we have continued to regulate Appalachian to balance the interests of all segments of the public affected by its operations.

Highlights of this regulation progressed as follows:

On August 28, 1975, the Commission issued its order in Case No. 8192 denying Appalachian's request to impose a special surcharge on its West Virginia customers to recover unrecovered deferred fuel expenses occasioned by our order issued February 20, 1975, in Case No. 7945 terminating the automatic fossil fuel adjustment clauses in electric tariffs regulated by this Commission.

On October 10, 1975, we issued out interim order in Case No. 8235, which found that Appalachian had filed rates which resulted in an overrecovery of fossil fuel costs for the five-month period ended August 27, 1975, with the net overrecovery of $212,173 to be refunded in the subsequent Case No. 7083 (Reopened).

On October 20, 1975, we issued our order in Case No. 8229, denying Appalachian's attempt to exact a surcharge from its West Virginia customers alone to finance certain pollution control facilities at its Phillip Sporn generating plant.

On May 19, 1976, the Commission issued its order in Case Nos. 7083 (Reopened) and 8235, setting rates for the period January 1, 1974, through August 27, 1975, and providing for refunds. This set the lawful rates, underlying the proposed rates sought to be approved by this Commission in this Case No. 8182 for the period on and after August 28, 1975. See Appendix F, Column I.

As additional background to the foregoing Appalachian rate proceedings, this Commission on April 29, 1976, issued its certificate order in Case No. 8401, wherein Appalachian was authorized to construct a $72 million high voltage transmission line to move bulk power southeast from Cabell County to Wyoming County, West Virginia for eventual extension into its Virginia market area and beyond. Appalachian candidly admitted that its projected Culloden-Wyoming project would cause it to require

higher rates in the instant proceeding Case No. 8182. In our decision in Case No. 8401, we found that the appropriate apportionment of costs of this project to various rate jurisdictions and classes of customers for ratemaking purposes would remain an open question subject to determination in the appropriate rate proceedings.

The final backdrop to the rate drama now before us is our order issued September 15, 1976, in Case Nos. 7930 et al, which concerned certain of Appalachian's coal producing subsidiaries. We approved, with modifications, most, but not all, of the affiliated transactions as requested by Appalachian. However, we conditioned our modified approvals so as to be free in rate cases to be able to disallow excessive costs of purchases of coal produced by Appalachian's subsidiaries. This protection for Appalachian's West Virginia customers was found to be essential since the record in Case No. 7930, et al, indicated that beginning in early 1976, the price of affiliate coal in some months began to increase substantially above the price of coal purchased from non-affiliated suppliers, so that periodically the differential exceeded $3.00 per ton. We intend, in Case No. 8182 and future rate cases, to protect the public from excessive coal costs. In our said order in Case Nos. 7930, et al, we said:

> "In the circumstances of proven reserves and subsidiaries which are experienced in coal mine operations, there should be little reason for Cedar and Southern not to be able to sell their coal to Appalachian at a price lower than Appalachian is paying for coal purchased from its non-affiliated coal suppliers. In fact, except for bona fide *force majeure* occurrences, of which we are not aware, a continuation of such a differential in coal prices could lead us to conclude in an appropriate rate case that a higher coal price by affiliates is planned or is due to poor management.

> ". . . In the meantime, Appalachian should be induced by our present discussion of this issue to insist that its coal subsidiaries mine coal so as to sell it to Appalachian at the lowest possible reasonable price. Otherwise, Appalachain's [sic] payment of unreasonable coal prices to its affiliates must be absorbed by Appalachian as a deterioration of its earnings and will not be fully allowed as a recoverable item in its cost of service for rate-making purposes."

With these premises we turn to the task at hand of determining just, reasonable, and not unduly discriminatory rates for Appalachian covering the period beginning August 28, 1975, to the present and immediate future.

Issues

This proceeding contains the full sweep of usual rate case issues—rate base, allowable rate of return and going level and pro forma adjustments to operating expenses and other revenue deductions.

At the Commission's suggestion, the participants' [sic] attempted to narrow these issues by stipulation with only partial success, chiefly because of the threshhold [sic] issue of the propriety of using a 1974 test year to set rates beginning August 28, 1975.

The usual issues leading to a determination of over-all revenue requirements are supplementary to the equally complex issues of *jurisdictional* and *class* cost apportionment underlying the ultimate issue of proper rate level and rate design for the many different types of customers affected. The lowest possible reasonable revenue requirements [sic] is of immediate concern to the utility. However, West Virginia customers in each class are more concerned with how much *they* are going to pay as a fair share of Appalachian's total cost of rendering electric services to

the public located within and beyond the borders of West Virginia.

This Commission must *balance* these economic interests which pulsate with and against the meandering stream of the "public interest" in constantly changing patterns, much the same as the electricity flow which performs at the speed of light in amount, voltage and direction affected by billions of wise or wasteful human decisions to use or not to use power. Other regulatory bodies are called upon to perform these same tasks for the people within their jurisdictions. We now begin our difficult job to protect the interests of West Virginia with equity to all.

Test Year

On July 21, 1975, the evidentiary hearing began in Case No. 8182, together with Case Nos. 8192, 8235 and 7083 (Reopened). The rates in Case No. 8182 cover the most recent time period of the four cases that were consolidated, and is the sole remaining Appalachian rate proceeding now pending before this Commission.

At the outset of the first day of hearing in Case No. 8182, counsel for Appalachian agreed that its testimony presented on a 1974 test year would be the respondent's case on direct (T. 37-56). As the hearings progressed in 1975 to culminate in orders in the other three cases, the staff of the Commission performed its audit of Appalachian for Case No. 8182 on the basis of a 1974 test year.

On January 12, 1976, it was announced on the record (T. 529) that the staff's prepared testimony was to be served on the parties prior to February 24, 1976. In Case No. 7083 (Reopened), counsel for Appalachian recognized that "material must be audited" before final decision (T. 547). On the same day, at T. 562 and 564, the presiding officer stated:

> "We have begun to try the Case No. 8182 on a test period of 1974. The time has past for changing

> those test periods. The alternative of not sticking with this test period at this time when you are halfway through an evidentiary proceeding is that there would be a never ending rate case involving Appalachian Power if we were to permit this kind of leapfrogging of test year evidence and new test year we would never come to an end.
>
> ". . . and then if they want to protect themselves for the period beginning August 1, 1976, they have every right to come in here and file a new rate case which would then be heard on a test period that would be more applicable to that period."

On April 21, 1976, after the staff audit on a 1974 test year was completed, Appalachian sought to introduce evidence based upon a *1975* test year. The Commission refused to permit the company to deviate from its prior election to proceed on a 1974 test year, but left open the question of whether 1975 data would be admissible at the rebuttal stage of the hearing.

On August 10, 1976, the Commission adhered to its ruling that rates would be set on a 1974 test period, but admitted evidence based on a 1975 test period for the limited purpose of deciding the propriety of the adjustments made to 1974 test year data.

The Commission finds that its ruling was entirely proper, particularly in light of staff evidence based upon unaudited 1975 figures and proper adjustments, that there was no decline in rate of return on going-level projections for 1975 as compared with 1974. Moreover, Appalachian's unaudited 1975 data contained several improper adjustments. For example, it assumed approvals by this Commission which were not forthcoming, concerning the transfer of ownership of certain of its coal properties. We denied Appalachian's request to transfer such coal properties to its coal producer subsidiaries by order issued September 15, 1976, in Case Nos. 7930, et al. Also, in its 1975 test

year data, Appalachian adjusted its going-level expenses for both 1975 and 1976 wage and salary increases. This would render its 1975 projection incomparable to its 1974 test year data and would tend to understate the resulting 1975 rate of return.

As we have stated in the past, the selection of a particular test year to be used in ratemaking involves a discretionary judgment on behalf of the Commission.

When a utility seeks to depart from the test year it first elects to use in the evidentiary hearing for a more current 12-months period, the Commission must weigh the advantages of a more recent period against the disadvantages of delay in the administrative process required by a long recess for purpose of staff audit of the new period. In the instant case, as in our order issued May 19, 1976, in Case Nos. 7083 (Reopened) et al, we adhere to our ruling on a 1974 test year with limited reference to 1975 data, since we "must always protect the administrative process from abuse and bring rate proceedings to an end for the public good."

Due to the passage of time since the rates in question went into effect and the date of this order, we will fully protect Appalachian from any real or feigned unreasonable injury by setting rates in Case No. 8182 on a two-tiered basis — (1) for the period August 28, 1975, through April 30, 1976, and (2) for the period on and after May 1, 1976. Cf. *C & P Telephone Company, Case No. 7496,* order issued June 24, 1974, *W. Va. P.S.C. 61st Annual Report,* pages 204-224.

COMMENT

The starting point for our consideration of adjustments to test year 1974 costs is as follows:

	Per Books — Staff	
	Total Company	Allocated to West Virginia
Operating Revenues	$439,573,142	$187,641,566
Operating Revenues Deduction Operation and Maintenance Expense	$244,021,372	$ 97,757,987
Depreciation and Amortization	$ 40,357,524	$ 16,866,980
Taxes Other Than F.I.T. ...	$ 27,803,909	$ 15,138,692
Federal Income Tax	($ 191,105)	$ 1,907,377
Total Deductions	$311,991,700	$131,671,036
Net Operating Income	$127,581,442	$ 55,970,530
Average Rate Base	$1,131,301,490	$472,790,666
Rate of Return	11.28%	11.84%

Appalachian's evidence of per books costs differed from the results of the staff's more recent audit made after accounting adjustments for federal income tax expense and differences in jurisdictional allocations of costs to West Virginia. Moreover, Appalachian's rate base methodology was not comparable to that of the staff, thus distorting the comparability of resultant rates of return both before and after going-level and pro forma adjustments of staff and company.

The end result after various adjustments to a going-level by Appalachian and staff compare as follows:

	APPALACHIAN		STAFF	
	Total Company	Allocated to West Virginia	Total Company	Allocated to West Virginia
Adjusted Operating Revenues	$ 425,550,313	$180,880,505	$ 420,827,187	$176,085,074
Adjusted Operating Rev. Ded.				
Operation and Mn. Expense	$ 257,133,668	$ 96,120,982	$ 263,751,098	$105,990,991
Depreciation and Amortization	$ 46,364,714	$ 20,894,282	$ 41,558,747	$ 17,334,859
Taxes Other than F.I.T.	$ 31,608,703	$ 17,166,935	$ 30,829,056	$ 16,023,424
Federal Income Taxes	$ 11,270,218	$ 6,730,704	($ 1,893,176)	($ 737,846)
Total Deductions	$ 346,377,303	$140,912,903	$ 334,245,725	$138,611,428
Net Operating Income After Adjustments	$ 79,173,010	$ 39,967,602	$ 86,581,462	$ 37,473,646
Allowance for Funds Used During Construction	$ 4,672,345	$ 2,142,040	—	—
Total Operating Income Plus Allowance For Funds Used During Construction	$ 83,845,355	$ 42,109,642	$ 86,581,462	$ 37,473,646
Rate Base	$1,319,121,055	$595,076,068	$1,171,404,899	$488,448,552
Rate of Return	6.36%	7.08%	7.39%	7.67%

The staff going-level rate of return of 7.67% for West Virginia is calculated on an *average* rate base, while the Company's going-level rate of return of 7.08% is based upon a *year-end* rate base, plus full allowance for plant expenditures accounted for as Construction Work in Progress (CWIP), and the addition of an income allowance for funds used during construction (AFUDC).

Specific Adjustments

The foregoing indication of wide divergence in the positions of Company and staff must be resolved by decisions on several specific, subsidiary issues to reach a representative matching of allowable costs to projected test-year revenues to set rates for the periods beginning August 28, 1975, and May 1, 1976.

Since we have decided that 1974 is an appropriate test year to use in the circumstances of this case, we interpret Appalachian counsel's letter to staff counsel dated August 10, 1976, as an agreement to narrow certain specific issues to be decided to the following:

1) Allowable adjustment to going-level fuel expense and related revenue adjustment.
2) Adjustment to purchased power expense to offset effect of an obsolete Capacity Equalization Agreement among affiliates of the AEP system.
3) Depreciation expense—(a) certain anti-pollution plant and (b) rights-of-way.
4) Property tax expenses in three States.
5) Miscellaneous adjustments for 1976 expenses.
6) Rate base—(a) working capital, (b) year-end vs. average and (c) Construction Work In Progress.
7) Rate of return on rate base.
8) Federal Income Tax—(a) normalization-tax depreciation, (b) investment tax credit—level

and normalization, (c) consolidated tax savings and (d) pro-forma revenue tax effect.

9) Jurisdictional cost apportionment.

10) Class of service cost apportionment.

11) Rate level and rate design.

1. *Adjustments Related to Fuel Expense*

One of the most difficult and substantial issues in this case is the determination of a reasonable level of fossil fuel expenses for the test year to set rates for the periods which began August 28, 1975, and May 1, 1976.

Appalachian urges a going-level *fuel* expense at $1.05 per million Btus *estimated* as the average for the period March 1976 through December 1977, which period began six months after the date the proposed rates were put into effect. Staff presented evidence to support an adjustment of *coal* expense to $221,257,082 (at $.998416 per million Btus) based upon the period September 1975 through April 1976, which period began eight months after the end of the test period and covered the immediate eight-month period after the requested rates were put into effect under bond. The effect of this staff adjustment would be to reduce actual test year per books coal expense from $225,966,126 (at $1.01966 per million Btus) to $221,257,082. These costs are for coal expenses only and are not the total Account 501 fuel expense, which includes other fuel and handling expenses. The comparable staff weighted average total Account 501 unit cost would be about $1.02 per million Btus.

We find that $1.00 per million Btus is a reasonable level of coal expense for determining the *first-tier* rates covering the period August 28, 1975, through April 30, 1976. In our order issued October 10, 1975, Case No. 8235, we found that the actual unit fuel cost for the period April through August 1975, was $1.03604 per million Btus. Coal prices

declined and stabilized somewhat in mid-1975. Thus, by adopting the staff approach the customers of Appalachian are given the benefit of the recent "softening" in the coal market.

Appalachian's proposed adjustment to $1.05 per million Btus is rejected, because rates based on such "estimated" fuel costs would permit Appalachian to recover substantially more than its actual fuel costs for that eight months period in which the first-tier rates are made firm.

However, for the purpose of determining *second-tier* rates for the future on and after May 1, 1976, we cannot ignore the relentless march of inflation on the price of coal. As disclosed by the record, we monitor the price of coal (Account 151) through the monthly fuel reports filed by Appalachian under Code 24-2-14. We have noted that beginning in the last two months of 1976 and the first two months of 1977, the price of coal purchased from non-affiliated suppliers is increasing, possibly due to wage escalations under the UMWA union contract.

The evidence of record indicates that the 1974 test year cost of affiliated coal was *lower* than non-affiliated coal purchases. This relationship has now reversed so that affiliated coal is currently *higher* than "outside" purchases. As previously stated we have warned Appalachian that we would protect the public from excessive coal costs. In Case Nos. 7930, et al, by order issued September 15, 1976, we cautioned Appalachian that it may be made to absorb any unreasonable differential between the price it pays for coal to its affiliated suppliers and to its non-affiliated coal producers.

However, we need not go outside the record to determine a reasonable level of fuel expense for setting rates to be lawful on and after May 1, 1976. In our judgment, based on the evidence, confirmed by our analysis of monthly fuel reports under Code 24-2-14, we find that $1.04 per million Btus or $230,472,530 is a reasonable level of coal expense

to be allowed in the costs to be recovered by the *second-tier* rates. This is greater than Appalachian's actual 1974 test year coal expense of $225,966,126.

Counsel for Appalachian objected to staff's *revenue* adjustment No. 3, which reflected the "roll-in" to base rates of .998¢ per KWH occasioned by our termination of the fuel adjustment surcharge as of April 1, 1975. Appalachian appears to argue that the going-level fuel cost adjustment should be $1.05 per $\overline{M}$Btus, rather than $.998416 $\overline{M}$Btus, and if so, the revenue adjustment would be erroneous. Such an objection is not well taken, because we are here considering a going-level adjustment which the staff made in order to reflect rate levels in effect prior to the filed rates proposed herein. Our allowance of $1.04 per $\overline{M}$Btus for the second-tier rates will increase expenses and any revenue deficiency resulting from higher fuel expenses will cause a resultant increase in allowable revenues to cover the higher costs.

2. *Purchased Power Expense Adjustment to Reflect Effect of Renegotiated Capacity Equalization Agreement Among AEP Affiliates*

The affiliates of the AEP system are each in different stages of growth. By virtue of the fact that growth of steam generation is on a *system*-basis rather than a *company*-basis, excess capacity on one AEP company is made available to its sister companies on a shared basis pursuant to agreement setting up a formula rate, allocating portions of the operating and capital costs of the excess capacity. This agreement among affiliates is known as the "Capacity Equalization Agreement". It is regulated by the Federal Power Commission.

During the test year Appalachian was a capacity-excess company and received revenues from its sister companies based in part upon a formula which contemplated an unreasonably low investment per kilowatt of generating capacity ($100 per KW of capacity) as compared with the

actual investment of in excess of $150 per KW of capacity during 1974. The AEP companies recognized this underpricing and in June 1975 filed with the FPC its Modification 3 to the Capacity Equalization Agreement.

Recognizing a need for going-level adjustment to power production expense on a known and measurable basis, the staff adjusted test year per books power production expenses by crediting revenues of $30,873,058 from AEP affiliates, instead of $26,209,579, against total power production expenses of $227,940,896, for allowable power production expense $3,939,615 less than it would have been otherwise.

The Company contends that the staff adjustment is improper not because the capacity equalization rate had been increased in June 1975, but because at some point subsequent to the test year Appalachian purportedly became a capacity-deficient company in the AEP system. The Company's contention is not well taken, because even when it is a net purchaser of power from its affiliates at a higher capacity equalization rate, it will have the benefit of substantial increased revenues from the resale of its purchased power under the Capacity Equalization Agreement.

It may well be that the Modification 3 rate formula provides charges which are still too low as among affiliates. This could be determined after cost apportionment studies. No cost apportionment studies were presented in the record going to classes of service within the Federal sphere of jurisdiction. However, since the AEP companies filed the Modification 3 rate formula with the FPC, Appalachian could not argue that the staff adjustment was excessive or was not based on a known and measurable change occurring soon after the end of the test period.

We find that the staff adjustment to per books purchased power expense to reflect a going-level reduction caused by an understatement of capacity equalization revenues is proper and reasonable.

3. *Depreciation Expense Adjustments*

Pollution Control Facilities

In late 1974 and 1975, Appalachian added pollution control facilities to its Glen Lyn and Clinch River generating plants. On the basis of an investment of $39,741,706 at August 31, 1975, staff would allow an adjustment to depreciation expense of an additional $1,231,993, derived from applying a 32-year service life or a depreciation rate of 3.1% to the investment.

The Company, on the other hand, urges the Commission to allow a depreciation expense adjustment, at much higher depreciation rates, amounting to $5,008,508 derived from the estimated remaining lives of the respective generating units to which the electrostatic precipitators are attached varying from 3 years remaining life for Glen Lyn Unit No. 5 to 21 years for Clinch River Unit No. 3.

This Commission has refused to permit utilities to increase their depreciation rates and expense in contemplation of a rate case. See *Cabot Corporation, Case No. 8289,* order issued October 6, 1976, at page 10. Changes in depreciation rate may be proper in order to protect invested capital which is subject to rapid physical deterioration, obsolescence or functionally reduced service life. However, there is always the temptation for a utility to increase its depreciation rates in order to attempt to justify an increase in rates and charges to its customers. For this reason, in our new Rules of Practice and Procedure dated March 1, 1977, we have adopted Rule 20 covering changes of depreciation rates, so as to ease the problem of how to reconcile accounting changes required by good engineering, accounting and management principles, with proper ratemaking. The intent is to establish proper depreciation rates prior to and independent of ratemaking to the extent permitted by the circumstances.

Staff argues persuasively that Appalachian's position is too extreme, because, for example, it would assume unrealistically that Appalachian would have spent $7,000,000 in 1974 for anti-pollution devices on its Glen Lyn Unit No. 5 and would retire the same from service early in 1977.

We find that the staff position is proper and that Appalachian has failed in its burden of proof to establish depreciation rates which are higher than the 3.1% composite generating plant depreciation rate used by the company for the units to which the electrostatic precipitators are attached.

Rights of Way

Appalachian seeks our approval for an adjustment to its depreciation expense by an additional $1,010,000 for depreciation on transmission rights of way and distribution rights of way. Traditionally, land, including rights of way encumbering realty, are not depreciable, for other than tax or special statutory purposes in certain circumstances. There is nothing of record to support the Company position on this issue. The claimed depreciation expense does not fall within any tax or special statutory exception to the general rule excluding rights of way from depreciation expense accounting. To the contrary, the claimed depreciation expense has never been recorded on Appalachian's books and the record is silent on the nature of the rights of way, their estimated service life and the method of reaching the claimed depreciation expense. We find that Appalachian's claim for depreciation expense adjustment is without merit and is rejected.

4. *Property Tax Expense Adjustments*

In Appalachian counsel's letter narrowing the issues in controversy, he took the position that regardless of whether the test year would be 1974 or 1975, "property taxes should reflect *actual* taxes paid in *1975*". However, this issue was not briefed by Appalachian. Pertinent evi-

dence shows real and personal property taxes to be as follows:

	1974		1975
	Per Books	Staff Adjusted	Per Books
West Virginia	$5,237,110	$ 7,405,577	$6,483,804
Virginia	3,922,844	5,229,582	3,431,101
Tennessee	31,542	34,128	36,647
Total	$9,191,496	$12,569,287	$9,951,552

We have selected 1974 as the test year and will approve the staff adjustments as made. The per books property taxes are as shown due to Appalachian's overaccruals of property taxes for prior years.

Property taxes are only one type of tax accounted for as "Taxes Other Than Federal Income". Other taxes, such as payroll taxes, gross receipts or business and occupation taxes and regulatory fees, will be further adjusted to reflect the effect of wage adjustments allowed in setting the second-tier rates to be approved, increases in the FICA tax base and revenue adjustments derived from the rates determined herein.

5. *Second-tier Miscellaneous Adjustments For 1976 Going-Level Adjustments To Expenses*

Because of the unique regulatory background involving Appalachian before this Commission and the necessary passage of time to afford full due process of law in our actions in this case, we are adopting the rare procedure of setting two different levels of rates in one numbered proceeding before us. We have already disposed of the most substantial subsidiary issue by finding above that the embedded cost of coal for determining rates to be in effect on and after August 28, 1975, through April 30, 1976, should be $1.00 per $\overline{M}$ Btus, and for the period on and after May 1, 1976, should be $1.04 per $\overline{M}$ Btus.

In addition, Appalachian urges that a going-level adjustment be made to the 1974 test year for (1) wage and salary increases put into effect April 1, 1975, and April 1, 1976; (2) postage rate increases which went into effect December 28, 1975; (3) medical insurance premium increases that took effect March 1, 1976; and (4) an FICA tax base increase effective January 1, 1976.

The record reveals that the magnitude of these additional operating expense adjustments would be as follows:

	Total Company
(1) Annualized Wage and Salary Increases:	
— effective April 1, 1975.....	$1,823,000
— effective April 1, 1976.....	2,684,000
(2) Postage Rate Increase.....	248,000
(3) Medical Insurance Premiums.....	343,000
(4) Increase in FICA Tax Base.....	181,000
Total	$5,279,000

In addition, a fifth adjustment was proposed by Appalachian of $1,531,000, representing a restoration of line maintenance expenses which were cut back in 1974, as an austerity measure to minimize cash outflow and to improve earnings. The test year expense reductions which should be restored to assure adequate service were detailed as follows:

80 line crews (412 men), outside contractors used in —ground line pole treatments	$ 187,000
— pole and tower painting	54,000
— overhead line maintenance	576,000
47 crews (147 men), outside contractors used in — tree and brush control.....	600,000
Related maintenance material costs.....	114,000
Total	$1,531,000

These five adjustments are found to be reasonable and proper and based on evidence establishing known and

measureable criteria and are to be allowed in determining the *second-tier* rates to be in effect on and after May 1, 1976. The April 1, 1976, wage increase, postage rate increase, medical insurance premium, and increase in FICA tax base are *not* allowed for the rate determination underlying the period August 28, 1975, through April 30, 1976, because their cost impact would not be substantial until the second-tier period.

We will allow for both the *first-tier* and *second-tier* periods and adjustment to the 1974 test period costs to reflect the annualization of wage increases that became effective April 1, 1975, in an amount of $1,823,000, and was recommended by staff as a proper going-level adjustment.

The adjustment of $1,531,000 in line maintenance expense, recommended by staff in its Exhibit No. 8, is allowed in both the first-tier and the second-tier rates so that in the future Appalachian will not be able to rely on a temporary austerity program to defer proper and necessary line maintenance required for adequate service to the public.

These adjustments are unusually liberal to the Company and are allowed in the determination of rates as described only in the context of the circumstances of this case affecting Appalachian and its customers. It is but one factor affecting our judgment, while realizing that such will be counter-balanced by our decisions on other subsidiary issues so that the end-result in rate-making will be fair, just and reasonable to all concerned.

6. *Rate Base*

This Commission has pointed out that "rate base", better described as "earnings base", is significant in ratemaking only as a tool to determine "allowable earnings" for a test period. In the "rate base—rate of return" method of ratemaking, the "allowable earnings" is the resulting product from the multiplication of "rate base" times "rate of

return". The allowable earnings are needed to retire debt, pay interest and dividends, and otherwise to be used in the business for construction or working capital. Such allowable earnings should also be adequate to permit the utility to finance reasonable expansion. Said "allowable earnings" are then subject to increase to recover "projected" income taxes associated therewith, by inclusion in the total cost of service to be recovered by the rates to be designed.

Except as to certain very small utilities and some governmental utilities, the "rate base—rate of return" method is the usual mode of cost-based ratemaking. This method uses projections of reasonable capital costs as but one component of the total reasonable costs (revenue requirements) allowed. The "end result" of just and reasonable rates are based upon these reasonable test year revenue requirements.

Although we discuss the two factors of "rate base" and "rate of return" separately and in precise numbers, we do so with an understanding of the limitations and interrelationships of certain concepts which affect our judgmental decisions. Evidence on the issues of rate base and rate of return are susceptible to a range of findings all of which have validity. Since the important consideration is the product of the two factors, rather than the factors themselves, our judgment in selecting precise numbers within a range of acceptable numbers are interdependent. Thus, there is a need to be fully aware of certain distinctions and the nature of statistical evidence. For example, there is a difference in concept and often a substantial variance in dollars between "rate base" and "total capitalization". "Rate base" consists of net plant (less customer contributions and tax deferrals) plus an allowance for working capital; whereas, "total capitalization" includes debt, deferred equity and common equity. Distinguishing these concepts, Appalachian's witness Brennan can show an actual, year end *total capital* of $1,397,451,000 as of Decem-

ber 31, 1974, and its witness Berg can sponsor a per books, year end *rate base* of $1,318,019,244, without being inconsistent. See Appendix A to this order. Likewise, it is not inconsistent for rate base witnesses to make going-level adjustments to change the test year rate base to another amount for purposes of fairness on the "matching" principle. It is partly for this reason that results of rate of return on capitalization studies are not the same as rate of return on rate base.

The concept of test year projections and adjustments to rate base costs, costs of service and revenues in *ratemaking* is a theorization based on facts in an attempt to reach a fair ideal matching of costs to revenue for the immediate future in order to prevent either excessively high or unreasonably low earnings. The Commission now and in the past has used such projected data in this fashion.

Proceeding now to the specific controversies over rate base items in this case, the Company urges as to (1) use a "year-end" rate base rather than a 13-month "average" rate base, (2) include in rate base *all* expenditures accounted for as "Construction Work in Progress" (CWIP), and (3) include in rate base an amount for cash working capital based upon an allowance of 1/8th of test year operating and maintenance expenses, excluding purchased power expense, but unadjusted for the lag experienced in payments for coal purchases.

The Commission has adhered to the average of 13-month balances method of ratemaking and the exclusion from rate base of most Construction Work in Progress, because it believes that the test year method of ratemaking should attempt to properly match the relationship between plant, expenses and revenues. We have allowed an exception to the general principle which excludes CWIP from the rate base in the case of CWIP expenditures for pollution control facilities, because such expenditures are (1) large, (2) required by governmental environmental regulation, (3)

non-revenue producing, and (4) operating cost increasing. The exception is made because of the equities involved and the same matching principle that supports the general rule. Such limited CWIP is allowed in rate base, so that the utility will be allowed to begin immediately to recover from ratepayers for substantial expenditures made involuntarily by the utility in compliance with governmental edict.

Both the year-end rate base and CWIP recommendations by Appalachian are rejected because, in the context of a substantial growth company, they tend to unduly accelerate the recovery of costs by mismatching capital costs for plant, which is just beginning to be or will be "used and useful" in the rendition of utility service, with test year billing units applied to adjusted revenues and costs.

In a growing company such as Appalachian, a *year-end* rate base would be larger than a rate base determined on an *average* monthly basis. The Staff shows a per books *average* rate base for 1974 as $1,131,301,490 to be adjusted to a going-level of $1,170,149,735 for total company.

Obviously, *any* allowable rate of return would produce higher earnings on a year-end rate base than on an average rate base for ratemaking purposes. As to a company with substantial growth in plant and sales, allowance of year-end rate base and *all* CWIP in rate base would tend to skew unreasonably a fair and representative relationship between revenues derived by application to lower test year billing units and higher capital costs for plant growth needed for greater future sales.

The Staff argues that exclusion of most CWIP from rate base is fair, since the Company can capitalize an Allowance for Funds Used During Construction (AFUDC) and recover such funds, including a return thereon, when the construction projects are completed and placed in service. Construction Work In Progress is a plant asset item on the balance sheet with no specifically related counter-entry in the total capitalization, either as debt or equity. The real

question is the extent to which present customers or stockholders should carry the burden of these CWIP expenditures for service to begin at some unknown date or dates in the future. We find that the Staff positions on these two subsidiary rate base issues are sound. We adhere to our prior precedents which require an average rate base, adjusted for year-end Construction Work In Progress dollars invested in pollution control facilities.

The working capital rate base issue is presented to us in the following manner. It is a standard principle that a utility should be allowed to earn a return on a reasonable level of cash working capital.

Working capital is not a constant or fixed percentage of rate base. Although it is sometimes approximated by formula or percentages, such mathematical exercises are valid only as an administrative convenience to be modified when results tend to be disproportionate under a fair analysis. Working capital is composed of three major components. The test year per books amounts as adjusted by Staff are as follows:

	Per Books		As Adjusted	
	Total Company	Allocated To W. Va.	Total Company	Allocated To W. Va.
	$	$	$	$
Materials and Supplies (Inc. Fuel)	63,051,604	25,224,455	63,051,604	25,224,455
Prepayments	985,651	408,848	985,651	408,848
Working Cash	15,362,671	6,290,961	19,810,607	8,059,853
Total Working Capital	79,399,926	31,924,264	83,847,862	33,693,156

The cash working capital component may be defined as the amount of cash required to be available to a utility for the payment of its operating and maintenance expenses which are incurred and paid for before operating revenues are sufficient to pay for such expenses. Theoretically, the investor is providing this cash for a short period of time

before the customer receiving service pays revenues to cover the expenses inherent in the service. The investor is allowed to earn a return on his investment used by the utility as cash working capital. Thus, the reason for the rule is tied directly to the lag period between the average time expenses are incurred and paid and the average time concomitant revenues are received by the utility. It can be argued that a regulatory body should be generous in allowance for cash working capital in rate base, in view of the fact that a utility has the legal obligation to perform continuous, adequate service to the public and cannot shut down and refuse to buy electricity or generating fuel to lessen the need for cash working capital. However plausible this argument, this West Virginia Commission must be neither generous nor niggardly, but must seek a balance and fair decision on this issue, as well as all issues, that affect the public servant and the public served.

In the past the Commission has used a modification of the FPC 45-day formula, whereby it has allowed as cash working capital 45/365 or ⅛ times the total operation and maintenance expenses after deducting purchased power expense. Purchased power expense is deducted on the premise that it does not represent an immediate cash outlay or does not have to be paid until close to or after the amounts involved have been collected from the customers.

In some cases, the Commission has allowed the utility to include fuel expense in the operating expenses to which the ⅛th factor is applied on the premise that there is a 45-day lag between the payment for the fuel and the receipt of revenues for the sale of electricity generated by the fuel. However, fuel expenses is [sic] such a large part of total operating expenses, that we should constantly review each utility's purchase and payment for fuel and receipt of concomitant revenues, to ascertain whether in fact a 45-day cash working capital requirement is realistic.

In this case, the staff audit revealed (based on August 1974 coal deliveries) that the Company was receiving revenues for service from 30 to 60 days after service, for an average of 45 days, while it was paying for coal purchased on an average of 29 days after it received the coal. Thus, deducting 29 days from 45 days, there would be a 16-day lag period during which the customer's money would not be available to pay for the fuel portion of service received. Therefore, Staff's adjustment to cash working capital was calculated upon a 16/365th, instead of a 45/365th or 1/8th, of fuel expense to reflect a lesser need of invested cash.

For these reasons we accept the staff methodology of calculating a reasonable allowance for working capital to be included in rate base.

7. Rate of Return

Cost of capital on Appalachian's *total capitalization* is but one of several guidelines to the Commission's judgmental decision on rate of return to apply to *rate base* for ratemaking purposes. We have previously discussed the differences in concept and dollars between (1) "total capitalization" used to estimate cost of capital and (2) "rate base—rate of return" in ratemaking. Thus, it would be improper to believe that a regulatory body would be bound by a rigid mathematical calculation of weighted average cost of capital based upon total capitalization, for purposes of setting a rate of return on rate base. In 1975 and 1976, the Commission set rates for Appalachian based upon an 8.73% rate of return to be applied to a 13-month average rate base for West Virginia. Not too many decades ago, in an era having low inflation, rate of return was not a major item to be litigated in ratemaking. It was recognized then that 6% was a fair, just and reasonable rate of return to be allowed by regulatory bodies. Utilities planned their growth, financing, and operations accordingly. During this period, utilities were able to grow at a reasonable pace to meet their public service obligations and

prosper. Within the past quarter of century, however, inflation and dislocations in the economy, due to such things as widespread and substantial governmental deficit spending, have increased the cost of capital, which, in turn, has affected a steady increase in rates of return allowed on rate base in ratemaking. We trust that there is a point in the not too distant future when the government and the governed will realize spiralling inflation must be stopped and take steps to do so, so that utilities will grow and serve the public within the limits of a non-increasing rate of return on rate base.

Looking first at the cost of capital criteria for determining rate of return, we find that Appalachian seeks a rate of return on year-end rate base in the range of from 9.65% to 10.1%. Appalachian would translate cost of capital expressed in percentage of total capitalization to rate of return on rate base with no other considerations. Moreover, Appalachian would have us believe that the calculated weighted cost of capital is a fixed and proper rate of return, regardless of the rate base to which it is applied. This is not true when one considers the many variances possible in arriving at an allowable rate base. Thus, both the cost of capital and the methodology employed in arriving at rate base must be considered before a fair rate of return can be determined. The Staff cost of capital witness followed the same basic error of believing in strict translation of cost capital into rate of return on rate base. On this basis staff recommended a 9.42% rate of return based upon evidence of cost of capital at December 31, 1975, of from 8.75% to 9.16%, and cost of capital estimated at December 31, 1976, to range from 9.17% to 9.67%.

An equally important consideration in determining rate of return is the necessity for higher earnings. If higher earnings are needed for improvident or excessively accelerated expansion or for excessive return to the common equity owners, the requested rate of return would be too high.

Here, however, Appalachian carried its burden of showing a need for rate of return higher than the 8.73% previously allowed, albeit not at the levels requested. Appalachian presented evidence that its senior securities and commercial paper had been downgraded to be at the lowest rating of all of the major electric utilities in the country. It argues that its debt coverage is dangerously low, so as to limit its ability to finance growth needed for its generating and transmission capacity. Appalachian argues that it needs higher rates to restore to a normal construction level its project 1300 megawatt generating unit partially completed at its site in New Haven, Mason County, West Virginia. In Case No. 8401, by order issued April 29, 1976, this Commission certificated Appalachian's 765-kV high voltage transmission line to run from Culloden in Cabell County to Wyoming County, West Virginia, while recognizing that Appalachian contended that it needed rate relief in Case No. 8182 in order to construct the $72 million project. Appalachian estimates its 1976-1980 construction program will require up to $1.3 billion, which would average $260 million per year. A portion of this financial requirement will be generated internally, with the balance raised from investors. In either case, Appalachian will require an improvement in earnings to be able to continue a reasonable growth to satisfy the electricity demands of an energy-short public.

There are several considerations, however, which militate against allowing a rate of return as high as is recommended by Staff or by Appalachian. First, the Commission has been liberal in its allowance of adjustments to fuel expense and other expenses for the second-tier rates. Second, we have permitted a measure of CWIP in rate base. Third, as discussed below, we are allowing a partial normalization of federal income taxes in order to improve the quality of earnings and to encourage growth of plant. Fourth, we have grave reservations about whether or not

West Virginia is paying its proper share of total costs vis-a-vis sales by Appalachian subject to other regulatory bodies as discussed below. Finally, the customers of Appalachian in West Virginia are not able to give it *carte blanche* for unlimited rate increases which cannot be absorbed by their limited incomes.

In the light of all of these considerations and the evidence, the Commission finds in its judgment that the allowable rate of return on rate base for Appalachian in this case is 9.35% for West Virginia.

It is hoped that Appalachian will be able to reduce unnecessary or unreasonable costs—such as (1) its cost of coal purchased from its affiliates and (2) other Account 501 fuel costs—in order to earn *more* than 9.35% on total capitalization. The actual results of future fiscal periods will reflect the good or bad results of management decisions, increased sales volumes, and efficiencies that will come with additional modern generating units and high voltage transmission systems. By keeping rates at levels which will recover no more than the lowest possible *reasonable* level of test year costs, we regulate in a balanced way to induce management to search for cost reductions, prudent growth, and greater efficiencies in operations.

8. Federal Income Tax Expense

As a general principle, a public utility must be allowed rates high enough to generate revenues sufficient for it to pay its federal income tax liability. It seems only just that public utilities pay their fair share of the cost of our federal government. Moreover, when a Company seeks and secures a rate increase, it would usually be expected that its greater revenues would result in higher earnings and, therefore, a higher income tax liability. However, under current federal income tax laws, this is not always the fact.

In Appalachian's situation it can generate millions of dollars of earnings which are subject to very little or no income tax liability because of Congressional modification of the tax laws which have accomplished the following:

(1) Profitable members of a public utility holding company system can enjoy tax savings due to the election by all of the members of the system to file a consolidated income tax return through their parent corporation, under Section 1501 of the Internal Revenue Code.

(2) Public utilities are allowed tax credits reducing their federal income tax liability in varying percentages of investments in public utility property, depending upon (a) the dates of installation, (b) the nature of the property, such as pollution control facilities, (c) the mode of rate regulation by regulatory bodies having jurisdiction and, (d) timely accounting and tax elections by the regulated utilities, all under Sections 38, 46 through 50 of the Internal Revenue Code.

(3) Public utilities are allowed accelerated depreciation and amortization deductions from gross taxable income at higher levels than booked under the straight line depreciation method used for certain depreciation expenses for non-tax purposes, depending upon (a) the dates portions of the property are placed into service with reference to pre-1970, post-1969 and facilities in operation before 1976 requiring pollution control additions, (b) timely accounting and tax elections by the regulated utilities and (c) the manner of rate regulation by pertinent regulatory bodies having jurisdiction, under Sections 167 and 169 of the Internal Revenue Code.

The history of the underlying tax statutes reveals the attempts of Congress to reconcile the interplay of two principles. First, there was the Congressional attempt to stimulate the economy by tax concessions to businesses to

encourage growth of tangible capital assets. Second, there was Congressional vacillation from time to time between attempts to limit and attempts to assure the benefits of tax concessions to public utility business enterprises. In so doing some states believe that these Federal tax laws threaten to cause an incursion by the Federal Internal Revenue Service in the ratemaking processes which are the jurisdiction of State regulatory bodies. The potential conflict between the Federal IRS and certain State regulatory bodies is materializing in California, where that State is reducing utility rates in a way that, under Section 46(f) of the Federal income tax law, certain California utilities may lose their tax credits and earlier tax savings and be assessed huge amounts of additional taxes.

Our West Virginia Public Service Commission need not and will not involve itself in this case in the type of controversy that is brewing in California. Appalachian has demonstrated that it needs substantial moneys from (1) earnings, (2) tax savings or deferrals, and (3) the financial market to be able to invest in new or expanded generating, transmission, and other facilities to be able to render adequate service to its broad market. Moreover, all parties to this proceeding concede that this Commission can grant, withhold, or modify its allowable Federal Income Tax expense and accruals to be used in the cost of service and rate base for ratemaking purposes in relation to normalization, averaging, or other methods of ratemaking, so long as this Commission does not "plainly contravene" the statutory scheme and the precise limitations of the Internal Revenue Code where Congress has failed to give rate regulatory bodies a formula to follow. *F.P.C.* v. *United Gas Pipeline Co.*, 386 US 237, 87 SCt 1003, 68 PUR3d 321.

Appalachian has elected to participate in the benefits of consolidated tax savings and investment tax credits and now seeks to switch from "flow through" to "normalization" accounting and ratemaking for certain, but not all, of the

tax benefits that result from adopting available tax depreciation methods which provide greater early year tax deductions and, therefore, less current income tax liability than would be derived from using booked straight line depreciation for tax purposes.

The Commission's discretion in determining an allowance for federal income tax expense in ratemaking must start with the fact that a projection of test year pro forma revenues, expenses and rate base cannot be an exact forecast of the immediate future after a rate adjustment is allowed. This is particularly true with respect to Federal Income Tax expense, because too many variables are involved, some of which are within and some outside of the control of the utility. For example, tax credit rates are changed by Congress; the taxpayer can switch his options to minimize his tax over several tax periods; qualified public utility properties can go into service at accelerated or delayed dates at management election; carryback and carryover of unused tax credits can distort the matching periods of expenses and revenues, and tax audits by the Internal Revenue Service can substantially change a utility's actual tax liability several years after the tax period.

As we stated in Case No. 8000, Columbia Gas of West Virginia, Inc., order issued June 16, 1976:

> "An informed judgment to determine an allowable federal income tax component in a cost of service for ratemaking purposes is a substantially different thing than calculating the actual taxes to be paid by a utility in its annual tax return. When regulatory bodies and reviewing courts say that only 'actual taxes paid' should be allowed in the cost of service for ratemaking purposes, they are enunciating a broad, general principle, which has certain limitations which must be fully understood when the principle is applied."

We start now with our findings on each subsidiary Federal income tax issue to be sure that they are based on rational criteria.

A. Consolidated Tax Savings

Appalachian agrees that tax savings derived from filing a consolidated tax return by its parent, American Electric Power, Inc., should be *shared fairly* with Appalachian's West Virginia customers. Appalachian contends, however, that the portion of tax savings due to the losses of the parent corporation should not be used in the formula for determining consolidated tax savings. The net effect of the Company position would reduce the average of consolidated tax savings percentages as compared with the results of separate tax filings, so as to reduce the consolidated tax savings and thereby increased the Federal income tax expense to be recovered as part of the total cost of service used in ratemaking. Appalachian would impute to itself the portion of its parent corporation's tax loss benefit derived by the percentage which Appalachian's taxable net income bears to the total taxable net income of the taxable net income companies. Staff, on the other hand, would calculate consolidated tax savings on the basis of including parent company losses with the other elements that create a consolidated tax savings and would apply a percentage reduction for consolidated tax savings to pro forma taxable income. Appalachian contends the consolidated tax savings should not be increased as incrementalized to pro forma taxable income and that the test year tax savings should be $664,371, instead of the $4,100,837 tax savings allocated to West Virginia.

Staff has followed long-standing Commission precedents in its method of estimated consolidated income tax savings, which have a rational basis. The Company method is not shown by the record to have any greater validity. Because

of the variables involved and the inherent imprecision in projecting a test year pro forma income tax allowance, the staff evidence based on historical facts of consolidated tax savings over a three-year averaging period (1971-1973) is found to be reasonable.

B. Investment Tax Credits (Job Development Credit)

The calculation of investment tax credits for a public utility's Federal income tax return is a most complicated task. Appalachian has been "flowing through" tax savings from the investment tax credits, which were 3% in 1962-1968, 4% in 1971-1974, and 10% starting in 1975. The tax credits are derived by multiplying these percentages times qualified investments in public utility facilities placed in service in the appropriate years and increased, if elected, by 3-year carryback and 7-year carryover of unused tax credits. There are other complexities; such as, "transitional rules" for the period between January 21, 1975 and January 1, 1981; limitations on the magnitude of the tax credits, and variable percentages of aggregate qualified investments of varying service lives in tax years 1975-1980. Suffice it to say that projecting an estimate of investment tax credits for the immediate future, as represented by a pro forma test year, which will approximate the *actual* investment tax credits to be realized is purely a matter of regulatory judgment and discretion. In these circumstances, the averaging method of projecting an estimate of the tax credits is a conservative way of determining a fair reduction in allowable Federal income tax expense.

Appalachian attacks the Staff method of using a 5-year average, rather than a 3-year average, without a maximum 90% limitation. Appalachian claims that the 5-year period includes qualified investments arising from its additions at its Amos plant, and that this unreasonably inflates the tax credit base used in the averages. The Company points

to its investment tax credits (unaudited by IRS) of $2.6 million in 1974, $4.4 million in 1975, and estimated $8.3 million in 1976, for a 3-year average of $6.7 million, instead of the $11.2 million proposed by Staff.

The record indicates Appalachian's qualified investments for tax credit purposes will increase substantially over the next five years. Moreover, its experience over the last three years indicates a steady growth of investment from a low point in 1974. The Staff method is found to be reasonable and is adopted by the Commission in calculating federal income tax expense.

C. *"Normalization" of Tax Benefits Due to Accelerated Depreciation and Amortization as Tax Deductions and Investment Tax Credits*

In the past Appalachian has used the "flow through" method of financial and ratemaking accounting with regard to income tax benefits attributable to (1) liberalized depreciation, (2) class life asset depreciation range, (3) asset depreciation range repair allowances and (4) investment tax credits.

Appalachian now wants to shift from "flow through" to "normalization" accounting in order to justify higher rates to its West Virginia customers. Appalachian argues that the benefits of "normalization" will outweigh the burdens.

The concepts of "flow through" and "normalization" accounting are understood to be as follows:

(1) "Flow through" accounting is used where the utility elects to use certain statutory tax-saving or tax-deferring provisions for (a) accelerated depreciation or amortization as deductions from gross taxable income, or (b) tax credits, and then the utility calculates Federal income tax expense for ratemaking purposes on the same basis. "Flow through" accounting in test year ratemaking is sometimes

broadly characterized as a method to allow recovery in rates of "actual taxes paid".

(2) "Normalization" accounting is used where (a) the utility employs straight line depreciation for tax purposes in ratemaking, even though it actually uses an accelerated depreciation or amortization for calculating taxes paid to the Internal Revenue Service and where (b) the benefits attributable to the investment tax credit are distributed over the life of the qualified asset, rather than in the year the tax credit is received.

Appalachian urges approval of its partial shift to "normalization", because it sees the resultant increase in cash flow as a means of improving its debt service coverage and ease its outside financing, as well as a means of increasing the amount of internally generated funds needed for construction. Appalachian argues that normalization is a method of accrual accounting which better matches revenues and expenses for services rendered. It would use an accumulated deferred income tax reserve to reflect the excess of normalized Federal income tax over that actually paid to the IRS during the early years of property life and would deduct the reserve from rate base or give an equivalent portion of the rate base a zero rate of return.

The Staff of the Commission presented its initial evidence on the basis of "flow through" and, subsequently modified its position to favor normalization of all tax benefits, except investment tax credit. At a Staff-recommended 9.42% rate of return level, the cost of service using normalization would be $5,215,951 higher than that obtained from a flow-through calculation. We decline to follow either the Staff or the Company's recommendations. We will adhere to a "flow-through" of tax benefits from liberalized depreciation, class life asset depreciation range (ADR) and ADR repair allowances, but we will allow normalization of investment tax credit benefits.

We reject normalization of tax benefits derived from using optional deductions from gross taxable income, because of our inability to fairly predict the tax effects of future elections by the taxpayer. In this very case, Appalachian changed its position and elected *not* to take accelerated amortization on pollution control facilities which were placed in service in 1975, under § 169 of the Internal Revenue Code because it wanted to minimize the payment of a 10% minimum tax on certain tax preference items and to increase its investment tax credit carryforward and increase its taxable income "without any change in the regular taxes payable".

On the other hand, we will permit the Company to "normalize" its investment tax credit benefits for ratemaking purposes in the unique circumstances of this case. Appalachian has elected *not* to use the option available under Section 46(d) of the Internal Revenue Code which allows an investment tax credit for qualified progress expenditures before the property is placed into service. Since we do not allow all Construction Work In Progress (CWIP) in rate base, we would be reluctant to allow normalization of investment tax credit benefits on property not yet placed in service.

Section 46(f) of the Internal Revenue Code provides the general statutory rule that no investment tax credit will be allowed to a public utility, *if a rate regulatory body* (1) reduces the utility-taxpayer's cost of service for ratemaking purposes by reason of any portion of the investment tax credit, or (2) reduces the utility-taxpayer's rate base to which the rate of return is applied for ratemaking purposes by any portion of the investment tax credit. The tax statute limits this general rule in various ways and without timely utility-taxpayer elections to the IRS. Obviously, the intent of this Federal statute is to encroach on the freedom and jurisdiction of State regulatory bodies

in ratemaking so as to aid public utilities to generate internally or to finance funds for construction of public utility facilities.

The West Virginia Public Service Commission need not raise the question under the 9th and 10th Amendment to the Constitution of the United States of whether Federal tax laws can control or impair a State's rights to regulate intrastate utility rates. We need not do so here because we recognize Appalachian's need for additional cash flow to be able to construct substantial additional facilities to continue to render adequate service to the public. The overall intent of the maze of shifting tax laws is that there should be some measure of *fair sharing* of tax benefits between utility taxpayers having growth problems and the ratepayers who also have limited financial means. By permitting Appalachian to adopt normalization of investment tax credit in this case, the Commission can still regulate Appalachian's level of Federal income tax expense used in ratemaking by an averaging technique such as the 5-year average of qualified investment used by the Staff and approved for this case.

We recognize that it is difficult to predict the tax benefits of future elections as to investment tax credits, but since this will be a direct reduction of taxes in each fiscal year it is more susceptible of fair regulation by averaging than would be the Sections 167 and 169 I.R.C. tax benefits by savings or deferral through "normalization" accounting and ratemaking. We must insist, however, that the rate base be reduced by any accumulated deferred reserve resulting from normalization and the deferred credits should be amortized over the life of the public utility property involved.

Following the methods approved above for calculating a test year, pro forma, Federal income tax expense to be used in ratemaking, we find that $4,573,249 is a fair, just and reasonable amount to be included in total cost of service based upon a 9.35% rate of return on a West Virginia rate base of $488,550,995 for the first-tier rates effective August 28, 1975 through April 30, 1976. Furthermore, we find that $4,596,410 is a fair, just and reasonable amount to be included in total cost of service based upon a 9.35% rate of return on a West Virginia rate base of $488,976,907. For the second-tier rates effective on and after May 1, 1976, see Appendices B and C attached hereto.

9. Jurisdictional Cost Apportionment

The second step in the ratemaking process, after determining the aggregate test year, pro forma total cost of service or revenue requirements, is to decide how much of the total is the fair responsibility of West Virginia *vis a vis* Appalachian's other markets in Virginia regulated by the Virginia State Corporation Commission and Appalachian's markets regulated by the Federal Power Commission. We approach this task with caution, not only because the process of jurisdictional cost apportionment is complex and ephemeral, but also because it should not put the customers in any rate jurisdiction or the Company itself at an undue or unreasonable disadvantage. In short, we must be fair and balanced in our determination of this issue.

Before considering subsidiary issues, certain factual data should be set forth as a point of reference that is not lost in a welter of statistical evidence. Upon the premise that the regulatory bodies of West Virginia, Virginia, and

the Federal Power Commission set rates on the basis of costs and each has to apportion total costs for ratemaking purposes in their respective jurisdictions, we note Appalachian's sales volumes, and unit revenues per kilowatt-hour sold over the period 1971 through 1976.

Except for unavailable interchange-out sales revenues to non-affiliates on billing units of 573,872 megawatt-hours in 1971 and 623,347 megawatt-hours in 1976, Appalachian's gross revenues increased from $238,924,000 in 1971 to $677,499,000 in 1976. Dividing pertinent kilowatt-hours sold of 19,552,038,000 in 1971 and 31,853,031,000 in 1976 into these revenues we find Appalachian's *aggregate* unit revenues increased from 1.22¢ per kilowatt hour in 1971, to 2.12¢ per kilowatt-hour in 1976, on said sales volumes. The underlying unit revenues by rate jurisdiction is shown on Appendix D hereto and as follows:

		1971	
1.22¢/Kwh on Aggregate Sales of 19,552,038,000 Kwhs	1.34¢/Kwh on	(W.Va.)	sales of 7,407,817,000 Kwhs
	1.44¢/Kwh on	(Va.)	sales of 6,216,874,000 Kwhs
	.92¢/Kwh on	(FPC)	sales for resale of 3,786,979,000 Kwhs
	.70¢/Kwh on	(FPC)	sales to affiliates of interchange-out of 2,140,368,000 Kwhs
		1976	
2.12¢/Kwh on Aggregate Sales of 31,853,031,000 Kwhs	2.64¢/Kwh on	(W.Va.)	sales of 8,745,946,000 Kwhs
	2.69¢/Kwh on	(Va.)	sales of 7,875,839,000 Kwhs
	1.71¢/Kwh on	(FPC)	sales for resale of 9,159,250,000 Kwhs
	1.30¢/Kwh on	(FPC)	sales to affiliates of interchange-out of 5,961,996,000 Kwhs

A. *Energy Cost Apportionment*

Several observations can be made from the foregoing facts, and Appendix D hereto, which also shows the detail of the intervening years between 1971 and 1976. First, for those who are "marginal cost" or "long run incremental cost" devotees, using 1971 as a base, Appalachian's growth in energy sales is shown to be predominately the responsibility of its FPC jurisdictional customers who purchased 9,243,374,000 Kwhs (or 75.9%) of Appalachian's incremental growth of energy sales 1976 over 1971 of 12,340,468,000 Kwhs. On a comprable [sic] basis, West Virginia realized a growth of 1,338,129,000 Kwhs (or 18.1%) and Virginia experienced an incremental increase in sales of 1,658,965,000 Kwhs (or 26.7%).

Yet, even with the substantial increase in energy requirements of the interstate market, Appalachian increased its unit revenue yield in 1976 over 1971 only by .60 (Interchange-out to affiliates) and .79 (Sales for resale) cent per kilowatt-hour for the FPC jurisdiction, which required the largest growth of energy requirements. In contrast, Appalachian exacted an incremental unit revenue increase of 1.30¢/Kwh for West Virginia and 1.25¢/Kwh for Virginia.

This Commission fully recognizes that the aggregate of sales under FPC jurisdiction may cost less per unit than does the aggregate of sales in the two State jurisdictions. This is because certain of the sales under FPC rate schedules may justify a lower demand cost responsibility than do the State sales and for other reasons, such as that a "wheeling" power service has little or no *energy* cost responsibility. However, the major cost increase experienced by Appalachian during the period 1971 through 1976, has been the hyper-inflationary jump in fuel costs. With this in mind, the substantially lower unit revenue increases for *FPC* jurisdictional sales as compared with *State* jurisdictional sales are suspect. It will only be with a fully

distributed jurisdictional cost apportionment study that regulatory bodies can act to avoid the possibility that West Virginia and Virginia are subsidizing Appalachian's interstate sales.

Both the Staff and Appalachian credited interchange-out revenues to total cost of service prior to the apportionment of costs by segregation or allocation factors based upon demand and energy components. Therefore, we have no way to test whether or not such FPC rates are too low against the backdrop of escalating fuel costs. We do know, however, that the use of the "revenue-credit-to-cost of service" method sponsored by Appalachian would assign cost recovery deficiency in such sales to West Virginia. In view of the lack of evidence on this issue involving interchange-out sales, we can do no more than accept the revenue-credit method used by Appalachian and the Staff for interchange-out sales. However, since the energy growth responsibility is shown to have been that of the FPC jurisdiction, we believe our concession in this regard is in favor of the Company and counterbalances other determinations in this order which Appalachian might consider as less than liberal to the utility.

In Case No. 8401, order issued April 29, 1976, we adverted to these same problems, and those pertaining to the lack of accurate and complete demand data, for use in cost apportionment. We noted there that:

> "Appalachian has embarked on a load research program to determine by sampling a more representative assignment of cost responsibility for its rendition of service."

Although this is more appropriate to cost apportionments to classes of service, rather than to jurisdiction, we are putting Appalachian on notice by this order that we expect Appalachian to come in with a full cost apportionment study *with measured data* as far as possible in its next rate case.

This Commission is charged with the responsibility of protecting West Virginia customers from the burden of any undue or unreasonable subsidization of other markets. We turn now to the issue pertinent to the *demand* responsibilities for assigning costs.

B. *Demand Cost Apportionment*

Unlike energy sales, all of the peak hourly demands (KW) of jurisdictions and classes of service are *not* measured. Those not measured are derived by formula. Nevertheless, the Company attempts to assign *demand* cost responsibility on the basis of peak hour demand, even though there is very little measured data of peak demands. Appalachian (1) uses demand allocation formulas that impute demands to classes of service of jurisdictions or else (2) it credits revenues against production costs before demand or energy allocations are begun. The latter method creates the fiction that such revenues cover a fair portion of all of the costs of such service. In the opinion of this Commission, unless such sales treated by the "revenue credit" method are relatively insignificant, the crediting of such revenues against total costs prior to cost apportionment is tantamount to assuming the fact in issue or "begging the question" of the fairness of cost apportionments within the total. Cf. Case No. 8000, *Columbia Gas of West Virginia, Inc.*, order issued May 14, 1975.

In its evidence, Staff included the measured peak hourly demands of Appalachian's short-term, limited term and unit power sales in megawatts in the development of the Staff's demand related allocation factors. Also, Staff included kilowatt hours of sales from these customer classes in the development of energy related allocation. These sales are regulated by the Federal Power Commission. Appalachian characterizes them as "non-firm" sales, even though they are "firm" to the extend [sic] of their contract

terms and have high priority in the event of future power shortages.

Appalachian opposes the staff approach on this issue, even though it had used the same method in its last major rate case, No. 7083, decided by this Commission. It does so on the ground that since neither Appalachian nor its parent plans or constructs facilities for short term, limited term or unit power sales that these classes of customers are not responsible for a fair portion of the costs of the system installed and operated to render all service.

The record indicates that even if it is true that Appalachian's system is not planned for these sales, there is no question that its system was *used* for these sales on the peak hour and in energy or commodity sales. The Commission finds that costs should be apportioned after considering the percentage effects of the *actual use* of facilities during the test year on the peak hour, as well as throughout the test year. In an integrated electric system having periodic spurts of growth, new capacity is made available prior to the time needed. The members of the system, as well as outside purchasers of power for resale know that there will be excess power available by design or by the principle of diversity, until growth stops at some unknown point in the future. When such customers contract for service, other than (1) purely emergency energy service, (2) interruptible economy energy service or (3) surplus or dump energy service, they pay a rate which includes a capacity or demand charge. If any service has a demand cost element underlying the capacity charge in its rate, that service should be tested to be sure that it bears a *fair* portion of the demand costs. Crediting such revenues against costs by-passes this issue. It would permit the Company to avoid the determination of the question of "How much is fair?".

What should not be lost sight of is the use that is made of a demand allocation factor. For example, staff applies the demand-allocation factor to most transmission operation and maintenance expenses. These expenses are for the benefit of the short-term, limited-term and unit-power customers, as well as other customers of Appalachian. All of these customers should bear a portion of the capacity costs of the facilities used to serve them.

We find that the staff method of jurisdictional cost apportionment is just and reasonable.

10. *Class of Service Cost Apportionment*

The third step in the ratemaking process is to assign the West Virginia costs to the classes of service within West Virginia which are subject to the rate jurisdiction of this Commission. This step is a necessary prelude to the final step or ultimate rate design process in ratemaking.

Classes of service within West Virginia include residential, commercial, industrial and others (sales for resale [FPC], street lighting, and sales to public authorities).

The costs of service for these classes should also involve cost apportionments if there is to be a change in rate design from historical differentials. Even if there is no change in rate design, the Commission should periodically test the propriety of the differences in rates as among classes of service. "Class of service" cost apportionment is just as complex and ephemeral as is "jurisdictional" cost apportionment.

Here, too, those who are "marginal cost" or "long-run incremental cost" devotees tend to jump to the conclusion that industry is responsible for Appalachian's growth and that the residential market is subsidizing the industrial market.

Our point of reference is the growth of sales volumes and revenues by classes of service over the period 1971 through 1976. See Appendix E hereto.

An interesting observation from this factual data is that, using 1971 as a base, the incremental growth of Appalachian's 1976 sales in West Virginia amounting to an aggregate of 1,354,505,189 kilowatt-hours is attributable as follows to the classes of service:

	KWHs	%
Residential	884,396,695	65.7
Commercial	379,778,318	28.0
Industrial	67,570,242	5.0
Others (Sales for resale [FPC], street lighting and sales to public authorities)	22,759,934	1.3
Total	1,354,505,189	100.0

In the face of these growth patterns of energy sales, realization of unit revenues by classes are as follows:

	Cents Per Kilowatt-Hour		1976 Over 1971
	1971	1976	%
Residential	2.09	3.22	54
Commercial	1.91	3.18	66
Industrial	.94	2.10	123
Others (Sales for resale [FPC], street lighting and sales to public authorities)	1.76	2.39	36
Total	1.38	2.63	91

These comparisons show that the *industrial* market grew by only a 5% increment of total market growth, while paying Appalachian a 123% incremental increase in unit revenues. On the other hand, the *residential* market grew by a 65.7% increment of the total growth, while providing Appalachian a 54% incremental increase in unit revenues. This is *not* to say that unit revenue growth by classes of service should match or even closely approximate growth in kilowatt-hours of sales. However, the great disparity shown is indicative that cost apportionment by classes of

service is required to test the fairness of rates as among classes of service in West Virginia. This is particularly true, since the accelerated fuel costs is [sic] such a large part of Appalachian's cost of service.

Neither Appalachian nor the Staff submitted cost apportionment studies by classes of service. In our order issued April 29, 1976, in Case No. 8401, we noted that Appalachian contended it was not possible to allocate peak demand among classes of customers, since only a small part of the component parts of that peak hourly demand among various classes of customers is measured. Appalachian has been put on notice for more than two years, that it must prepare such a study. It is our understanding that such a study by use of a sampling technique is soon due. A fully distributed cost apportionment study by classes of service will be required.

11. *Rate Level and Rate Design*

The final step in the ratemaking process is to set rates, tolls or charges for service to each customer class and for each demand and usage block at rate levels which are no more than the specific service is reasonably worth to the various customers "considering the cost thereof". Code 24-2-2. These rates and charges must be just, reasonable and fair to all segments of the public involved. Code 24-2-3. The public involved includes the public served and the public servant. The public served includes classes of customers, as well as customers within each class that require very little electricity or extremely large amounts of power. These requirements may and often do vary from hour-to-hour, from day-to-day, from month-to-month, from season-to-season and from year-to-year. Since the metering for these peak and volume fluctuations over various periods of time, and the compilations of the resulting measurements would be extensive and expensive, various compromise rate

forms have been designed and used to achieve rate fairness. One of these rate designs is the declining block form of energy rates as a simplification of cost related rates.

Currently, there is a lack of understanding of the declining block rate form leading to debatable conclusions, which, if put into effect, may adversely affect the well-being of every element of the public. There are those in influential positions who say that electric rates should not have a lower tail block rate for the large users. They contend that this is "promotional" and provides high usage customers with an unfair preference over low use customers. Moreover, the argument goes further to characterize declining block rates as being contrary to a conservation of energy policy and a burden on the poor.

The Parable of Milk

Often, both experts and newcomers in the energy-rate debate deal with the pet phrases and esoteric vocabulary of the controversy without a full understanding of the limits and ambivalence of the terms and pertinent concepts. Thus, for a better understanding of declining block rates and their underlying costs, we believe that an explanation by way of analogy in terms of the sale of milk would be helpful.

Our parable involves two extremely poor families—(1) an elderly widow on social security who lives alone, and (2) a husband and wife with two children living on welfare.

The *elderly widow* buys a quart of milk a week at 50 cents a quart, from which she can drink 5 glasses of milk each week at 10 cents per glass. She cannot buy more than a quart of milk a week because she does not have the money. Even if she did have an extra 50 cents, she would not buy a second quart or a half gallon of milk because it might spoil in her tiny refrigerator.

The *welfare husband* buys a gallon of milk a week at $1.50 per gallon, from which he, his wife and their two little

children can drink 20 glasses of milk. Thus, each of the four persons can drink 5 glasses of milk each week at 7½ cents per glass.

Looking at these two sales *from the point of view of the supplier,* it costs the dairy more to supply a quart of milk than it does to supply a gallon. The dairy pays more per carton to buy a few quart cartons, fill them, and handle them, than it does for it to buy the more popular gallon cartons, fill and handle them. The dairy may have less of a profit margin on each six ounces of milk sold by the *quart,* than it does on each six ounces of milk sold by the *gallon.*

Although the analogy is not perfect, these prices could be stated in a "declining block" price form, rather than a "per carton" price form, to be 10 cents per glass for the first 5 glasses of milk and 6.67 cents per glass for the tail block of 15 glasses of milk.

From the point of view of the two poor milk customers, the widow cannot justly complain that she is being discriminated against because her milk purchased by the quart costs her 10 cents per glass rather than 7½ cents per glass when purchased by the gallon. If the welfare husband was forced to pay 10 cents, instead of 7½ cents per glass, such would not encourage conservation of milk.

If government stepped in and ordered the dairy to reduce the price of a quart of milk from 50 cents to 38 cents, so that the widow could get milk at 7½ cents per glass, it is possible that the dairy could not sell milk in quarts at that price without suffering an out-of-pocket loss. It would not be just for the dairy to raise the price of a gallon of milk to the welfare husband, so as to make up for the loss from the sale to the widow at below cost.

Application of the Parable to Electricity

Any arbitrary, blanket condemnation of the declining block form of electric rates can very easily create the same

kind of potential injustice as is suggested in the milk parable. Without valid studies of the cost of supply power at various voltages, demands and amounts of energy, flattening or inverting the block form for electric rates can cause the utility to sell power at a substantial loss or require other customers to pay an inordinate electric rate to subsidize the low user. Although the poor person is more often than not a low user of power this is not always the case. Moreover, there are many more electric customers in West Virginia who are *not* poor and who are also low users of electricity.

In the discouragement of large uses of power by high rates and abruptly changing rate forms, such discouragement does not distinguish between the prevention of *good* uses of electricity and *wasteful* uses. Morover, if the large users of electricity are providing the utility with substantial amounts of revenues to cover the utility's costs and profit margin, any forced reduction in use in substantial amounts by penalty pricing may either cause the utility to shift the cost burden to other customers or absorb the loss itself and thus weaken its financial condition and its ability to serve.

By this discussion this Commission does *not* imply that electric rates should not be flattened or changed in any way from the declining block rate form. We merely caution that it should not be done abruptly or without valid supporting cost apportionment studies.

We turn now to the rate design issues posed for decision in this proceeding.

Residential Rate Design

Appalachian proposes to eliminate its lower water heater service rate for residential (R.S.) customers, and after eliminating or phasing out its Church Service (C.S.), Electric Heating-General (E.H.G.), School Service (S.S.),

Capacity Power (C.P.) and Large Power (L.P.) services, it would spread the rate increase by an across-the-board percentage.

Appalachian Research and Defense Fund, Inc., et al, ("Low Income Intervenors") urge the Commission to grant little or no increase in the residential rate, and an increase of .21¢ per Kwh for the commercial and industrial customers who purchase under the Commercial-Industrial Power (C.I.P.), Large Capacity Power (L.C.P.), Transmission Power (T.P.) and High Load Factor Power (H.L.P.). The Low Income Intervenors urge a departure from the declining block rate structure to an inverted block rate structure of 2¢ per Kwh for all usage above 200 Kwh and 4¢ per Kwh for all usage above 200 Kwh per month, *but* with *credits* given for off-peak usage for electric hot water and/or electric space heating. In addition, they recommend "the reduction of 'submarginal' rates", which is interpreted by the Commission to mean that any rate preference now being given to the low use or initial block rates should be further reduced. The theory underlying this proposed rate innovation and attack on the declining block rate form is that of "marginal cost" or "long run incremental cost". As to "peak load" or "time of day" pricing, the Low Income Intervenors do *not* recommend that residential customers be put on that type of metering or rate form at the present time, because the cost of necessary metering would be too high.

Protestant, Council of Senior Citizens, contends that Appalachian's tail blocks are too low and *assumes* that the growth in demand causing Appalachian to grow in demand and energy supply is due to the requirements of the industrial and commercial markets.

FMC Corporation, ACF Industries, Inc., American National Rubber Co., Chemetron Corporation, Huntington Alloys, Inc., Houdaille Industries, Inc., and Owens-Illinois,

Inc., ("Industrial Intervenors") oppose the "marginal cost" theories and rate design proposals of the Low Income Intervenors. They point to the danger of loss of industry to other States by excessive rates to West Virginia industry. They discuss weaknesses in the theory and factual background of the "marginal cost" arguments made by the Low Income Intervenors.

The Staff of the Commission notes that the record is bare of a fully distributed cost of service study by customer class, but that such a study (requested by the Commission in April of 1975) was expected soon. In this posture, the Staff opposes the elimination of certain rate schedules and would spread any revenue deficiency over all classes of service on a percentage basis.

The Commission finds that in the absence of a cost apportionment study or studies, it will generally adhere to the historical rate form, with certain minor discretionary modifications, and will deny the proposed changes in rate form made by Appalachian and urged by the Low Income Intervenors. We do this without prejudice to our future actions which may change the historical rate forms used by Appalachian on the basis of valid cost apportionments and other considerations.

On the present record we have no way of knowing whether the discount given to residential water heating customers or electric heating-general customers is fair or not. It could very well be that a cost apportionment study would indicate that the large users in the residential class of service are already contributing more through the low blocks of their rates towards the costs of serving them than is justified. The opposite could also be true.

We do know, however, that the residential market in West Virginia is more responsible for Appalachian's growth over the period 1971-1976 than is the industrial market, although it appears that the major cause of growth

is due to the demands for electricity outside of West Virginia. Thus, if we were to be influenced by the "marginal cost" or "long run incremental cost" theorists, we would be led to the conclusion that the residential market growth is more responsible for Appalachian's growth of facilities in a hyper-inflationary age, than is industry.

As to the Low Income Intervenors' recommendation that the block rate form be inverted, not only is the record void of probative evidence to quantify such a rate form on a just, reasonable and fair basis among the various classes of customers—even with a preferential bias to the residential class, but also the argument of the Low Income Intervenors is weakened by their recommendation of a *credit* (of unknown magnitude) for water and space heating customers.

We do recognize that the debate is not ended and that the poor customers do have a need for every consideration. Therefore, in an effort to move towards a gradual flattening of the declining block rate form, we will design residential rates herein which will spread the rate increase *after skipping the first usage block* of the R.S. rate schedule. We do not do this arbitrarily, but act after analysis of the effect of Appalachian's informational filing pursuant to ordering Paragraph 4 of our order issued January 31, 1975, in Case No. 7083, and the facts of record in this case.

The "end results" of this and other rate design issues determined herein are set forth in Appendix F to this order.

Abrupt Elimination of Industrial and Commercial Rate Schedules

In Appalachian's proposed W.Va. P.S.C. Tariff No. 3, in effect tentatively since August 28, 1975, in addition to its abrupt elimination of the water heater service for residential customers discussed above and reinstated herein, Appalachian deleted its Combined Light & Power (C.L.P.), Capacity Power (C.P.), and Large Power (L.P.) rate schedules previously available to certain of its industrial and commercial customers.

The Commission has been informed that Appalachian had no commercial customers purchasing under its C.L.P. rate schedule. We have no objection and approve the deletion of this portion of the tariff as superfluous. The C.P. and L.P. rate schedules were previously available to certain customers. We find that Appalachian failed in its burden of proof to justify the deletion of these services, because it presented no cost data to support its managerial decision and other considerations discussed below.

L.P. Rate Schedule

The Large Power service rate was available to customers who contracted to pay for a definite, large amount of electrical capacity in excess of 50 KVA in multiples of 25 KVA. The rate was composed of a demand charge and a declining block energy charge, with a minimum monthly charge also composed of demand and energy components. The record does not reflect which customers were served under this rate schedule. After the L.P. schedule was abruptly eliminated, it is thought that such customers would begin purchases under the Commercial-Industrial Power (C.I.P.) schedule. The C.I.P. schedule had the same demand energy form and level of rates as did the L.P. schedule. However, the minimum charges of the C.I.P. schedule was higher than that in the L.P. schedule and would cause customers affected to experience a higher per unit cost of electricity under the C.I.P. schedule if the load factor of purchases fell below a certain level. Those coal mines which purchased power under the L.P. schedule would be adversely affected by its deletion if they were relatively low load factor customers. We cannot eliminate the L.P. schedule on the basis of the record before us.

C.P. Rate Schedule

Appalachian proposes the deletion of the Capacity Power rate schedule available to industrial power users (other than coal mines). The C.P. schedule is a primary-secondary type rate, with two sets of declining block rates keyed to use and to the customers' contracts for electric capacity in amounts over 50 KVA and in multiples of 25 KVA. The C.P. rate was apparently designed for the low load factor industrial customer.

The elimination of the C.P. schedule on and after August 28, 1975, forced the C.P. customers to elect between the General Service (G.S.) and the Commercial-Industrial Power (C.I.P.) rate schedules.

The impact of Appalachian's filing is illustrated by the plight of the letter-Protestant, Guyan Machinery Co. ("Guyan") of Logan, West Virginia. Guyan protests that they were forced to purchase under the C.I.P. schedule after August 28, 1975, because Appalachian's G.S. schedule was "plain murder" and Guyan's low use made unavailable the other Appalachian schedules granted coal mines and other large volume users. Guyan complained that being forced to go to the C.I.P. schedule gave them a "double" increase, that is, (1) an increase resulting from going from the more-favorable C.P. to the C.I.P. schedule, plus (2) the rate increase proposed for the C.I.P. schedule.

The creation of several classes of service depends upon a combination of distinctive load characteristics (magnitude of demand, load factor, time of use, frequency and duration), as well as special physical circumstances of large industrial demands and purchases in relation to the utility's facilities and capacity. The nature of the customer's functions or its societal context as an industry, commercial business, school, church or other institution is also important in justifying *reasonable* rate differentials and separate rate forms.

As a general rule the Commission favors a reduction in the number of rate schedules in a tariff in order to simplify the administration, regulation and understanding of customer billings. However, we do not approve the deletion of rate schedules, which certain customers have come to rely upon, without something more tangible and persuading than the mere simplification of a tariff.

We must have more than a mere assertion that certain rate forms were "promotional" and are deleted because they were "designed years ago to serve coal mining customers and which cannot be justified on a cost of service basis in today's economic climate". The record does not support this assertion. We suggested in Case No. 7083 by our order issued January 31, 1975, rate changes should not be abrupt in departing from historical rates because customers in various classes of service have geared themselves to rates and rate forms in effect. An abrupt change would destroy this relationship without good cause and do violence to the maintenance of good faith between the utility and its customers.

We will require that the C.P. and L.P. rate schedules be reinstituted and that the respective C.P. and L.P. customers who purchased under these rate schedules when they were last effective will have the option of choosing to be billed thereunder at the higher rates allowed herein for the period after August 28, 1975, and to receive refunds accordingly.

Gradual Elimination of Certain Services

Appalachian proposes to gradually eliminate its Church Service (C.S.), School Service (S.S.) and Electric Heating-General (E.H.G.). It would phase out these rates over a 4-year period by imposing a cumulative 10% surcharge each twelve months for the period ending August 27, 1979. At some point before the end of the 4-year period Appalachian would anticipate that its customers, severally, would find it economically advantageous to shift to the G.S., C.I.P. or P.S.O. (Public School Optional) schedules.

Here, too, no cost apportionment by classes was presented on the evidentiary record. The schools, churches and general service (non-residential) heating customers have been paying higher declining block rates, plus a 10% surcharge in 1975-1976 and a 20% surcharge in 1976-1977. The Commission is informed that certain of these customers, including the churches, have had demand meters installed by Appalachian.

Protestant, Kanawha Valley Baptist Association, through its moderator, Mrs. Lucille E. Gillispie, presented evidence and argued persuasively that the elimination of the C.S. schedule was demonstrably unjust. The Staff of the Commission agrees and noted Mrs. Gillispie's testimony that the "concept of the demand meter is prejudicial against churches which have activities primarily on one day, and that day being when industry is at its lowest ebb".

We find that the churches and schools are distinctive institutions dissimilar in character from the residential, commercial and industrial institutions in several ways that have relevance to utility service and pricing with reference to load characteristics, economics, philosophy of pricing, and societal context.

We find that E.H.G. service, as well as C.S. and S.S. service cannot be eliminated, even gradually, without a consideration of the cost of such service in relation to what each is reasonably worth.

Appalachian will be required to reinstate the C.S., S.S. and E.H.G. rate schedules without the surcharge and at the lower block rates determined in this order and refund to the respective customers the entire surcharges collected, plus the difference in the filed block rates and the lower approved block rates. Our action here has support in principle under *Clarksburg Light and Heat Co.* v *P.S.C. of W. Va.*, 84 W.Va. 638, 100 SE 551 (1919); *Anchor Coal Co. et al* v *P.S.C. of* W. Va. [sic], 123 W. Va. 439, 15SE 2d 406 (1941).

Other Tariff Provisions

Appalachian also filed two new schedules, R.E. (Rural Line Extension Plan) and T.S. (Temporary Service). In Staff's brief we are urged to approve for West Virginia, the wording of Appalachian's Virginia tariff relating to extension of service as being more specific. Staff also urges that "residential customers" should be excluded from certain limitations in the tariff provisions related to "Service Connections" and "Use of Energy By Customer", which are sections in tariff's "Terms and Conditions of Service". Finally, Staff urges that residential customers who have their service discontinued, should be excused thereafter from paying any minimum bill. These suggested changes do not appear to be opposed by Appalachian or the other parties to the proceeding and are approved. They are in the public interest and some will be further modified so that Appalachian's tariff will be in conformance with our recently promulgated Rules and Regulations for the Government of Electric Utilities.

Although not raised in any of the briefs, we note that Appalachian has changed the form of its minimum monthly charge for its L.C.P. service. The record is void of any support for this change in rate design. Appalachian will be required to revert to the *form* of minimum charges contained in its tariff sheets in effect April 1, 1975 through August 27, 1975, without prejudice to changing its minimum charges in future rate proceedings upon a consideration of costs and other pertinent factors.

The specific tariff provisions discussed and required to be modified are set forth in Appendix G hereto.

FINDINGS

In addition to the decisional findings and conclusions above, the Commission finds as follows:

1. The rates and charges set forth in Appalachian Power Company's Tariff W.Va. P.S.C. No. 3 issued March 31, 1975,

and put into effect August 28, 1975, by terms of West Virginia Code, Chapter 24, Article 2, Section 4, are unjust and unreasonable for the reason that they would produce more revenues than are necessary to enable Appalachian Power Company to pay its reasonable and necessary operating expenses, taxes, and depreciation, and earn a fair return on its property used and useful in its public service business in the State.

2. Appalachian Power Company did not sustain its burden of proof to avoid undue rate discrimination under West Virginia Code, Chapter 24, Article 2, Section 2, so as to justify its proposed modifications in the rate forms contained in the R.S., L.C.P., C.S., E.H.G. and S.S. schedules and its proposed deletions of the C.P. and L.P. schedules as of and after August 28, 1975.

3. The changes proposed by Appalachian Power Company in the "Terms and Conditions of Service" portion of its filed tariff on Original Sheet Nos. 3-1, 3-2, 3-3, 3-4 and 3-5, are not supported by the evidence and are not in the public interest to the extent that they may substantially depart from Part 4.00 Customer Relations of the Rules and Regulations for the Government of Electric Utilities promulgated by this Commission as of March 1, 1977, and soon to be in effect in May 1977 and thereafter, unless modified.

4. The rates, charges and tariff provisions hereinafter approved, are just, reasonable and not unduly discriminatory.

Order

1. The tariff sheets filed with the Commission by the respondent, in its Tariff W.Va. P.S.C. No. 3, issued March 31, 1975, are hereby cancelled and stricken from the tariff files of the Commission, except for Original Sheet Nos. 2-1, 2-2, 2-3, 2-4, 2-5, 12-1, 12-2 and 13.

2. The rates, charges and tariff provisions set out in Appendix F, Columns IV and V and Appendix G attached to this order are approved, severally, to become effective on and after August 28, 1975 and May 1, 1976, as shown or required therein.

3. Appalachian is ordered to utilize the *form* of minimum monthly charges as is contained in its tariff sheets approved by our Order issued August 9, 1976 in Case No. 7083, in the schedules to be filed.

4. Appalachian is ordered to file revised tariff sheets to supersede those sheets requiring modifications for its W.Va. P.S.C. Tariff No. 3, within fifteen (15) days of the date of this order for approval by this Commission as to their conformity with the findings and conclusions stated herein.

5. Appalachian shall refund to each of its customers entitled thereto, within sixty (60) days of the date of this order the amount of excess collected under the rates placed into effect under bond and the amount which would have been collected under the rates that are herein approved, with interest thereon, at the rate of seven and three-quarters per cent (7¾%) per annum, until paid; that refunds of Five Dollars ($5.00) or less may be made by crediting the amount of the subscriber's account, and that as to amounts in excess of Five Dollars ($5.00) the refund shall be made by check.

The respondent shall report to the Commission the amount refunded, including the interest, the manner of refunding and the amount, if any, which it has been unable to refund.

6. Appalachian shall rebill each customer, who had been billed under the C.P., L.P., C.S., S.S., or E.H.G. schedules prior to August 28, 1975 for the two periods which began

August 28, 1975 and May 1, 1976, so as to give the customer the option of requesting and receiving refunds under the prior rate form or the schedule under which the customer actually purchased power during the two refund periods.

7. Appalachian is hereby ordered to file in any of its future rate adjustment filings for service to West Virginia's retail customers, as part of its Tariff Rule 42 data, at least two cost apportionment studies, which will set forth fully-distributed cost responsibilities to West Virginia, Virginia and the Federal Power Commission jurisdictions and as to Appalachian's various classes of service; one study shall be on either a coincidental or non-coincidental peak basis and the other study shall be on the Excess Demand method.

A Copy.

Teste:

s/ S. Grover Smith, Jr.
S. Grover Smith, Jr.,
Secretary

APPENDIX A (CASE NO. 8182)

APPALACHIAN POWER COMPANY

BALANCE SHEET—YEAR END RATE BASE AND CAPITALIZATION AT 12/31/74

	Balance Sheet at December 31, 1974 (In Thousands)		Appalachian Rate Base Calculation December 31, 1974 (In Thousands)		Appalachian Capitalization at December 31, 1974 (In Thousands)	
ASSETS AND OTHER DEBITS						
Utility Plant	1,475,026		1,475,026			
Construction Work in Progress	104,201		104,201			
Total Utility Plant	1,579,227		1,579,227			
Accumulated Provision for Depreciation	(355,740)		(355,740)			
Net Plant		1,223,487	1,223,487			
Other Property		75,170				
Current Assets		176,423	68,556	Prepayments, Materials & Supplies		
Deferred Debits		47,232				
Total Assets and Other Debits		1,522,312				
LIABILITIES AND OTHER CREDITS						
First Mortgage Bonds	669,748				669,748	Long-Term Debt
Debt Premiums	1,936	671,684				
Sinking Fund Debentures	40,153				40,153	Sinking Fund Debentures
Debt Premiums	229					
Sinking Fund Requirement	(468)	39,914				
Installment Purchases		24,000			24,000	Installment Purchase Contracts
Total Long-Term Debt		735,598				
Preferred Stock		109,799			109,799	Preferred Stock
Common Stock		117,958			117,958	Common Equity
Other Paid-In Capital		159,168			159,168	Common Equity
Retained Earnings		110,899			110,899	Common Equity
Current Liabilities		244,373			126,090	Short-Term Debt
Deferred Credits		44,517	(7,803)	Deferred Federal Income Tax-Liberalized Dep.	19,048	Deferred Fed. Inc. Tax —Accelerated Amortization
Total Liabilities and Other Credits		1,522,312				
			33,779	*Working Cash Allowance	20,588	Common Equity—Subsidiary Earnings
			1,318,019	Total Rate Base	1,397,451	Total Capital

* Calculated

APPENDIX B (CASE NO. 8182)

APPALACHIAN POWER COMPANY

COST OF SERVICE COMPONENTS AND REVENUE DEFICIENCY PER COMMISSION ORDER
TEST YEAR 1974
WEST VIRGINIA OPERATIONS
FIRST TIER

A. COST OF SERVICE COMPONENTS

	Operating Revenues	Operating Expenses	Depreciation and Amortization	Taxes—Other Than Federal Income Tax	Average Rate Base
	$	$	$	$	$
Per Staff Exhibit No. 8	176,075,074	105,990,991	17,334,859	16,023,424	488,448,552
Adjustments:					
Coal Expense @ 1.00 per MBTU		120,512			
April, 1975 Wage Increase		779,515			
Payroll Tax Adjustment				46,592	
Working Cash Adjustment Resulting From Operating Expense Adjustments					102,443
As Adjusted	176,075,074	106,891,018	17,334,859	16,070,016	488,550,995

B. COST OF SERVICE AND REVENUE DEFICIENCY

Allowance for Return @ 9.35%	$ 45,679,518
Operation and Maintenance Expenses	106,891,018
Depreciation and Amortization	17,334,859
Federal Income Tax	4,573,249*
Other Taxes—Before Additional Business and Occupation Tax	16,070,016
Additional Business and Occupation Tax	916,663*
Total Cost of Service	$191,465,323
Revenue Deficiency	$ 15,380,249

NOTE: * Calculated After Other Adjustments.

APPENDIX C (CASE NO. 8182)

APPALACHIAN POWER COMPANY

Cost of Service Components and Revenue Deficiency Per Commission Order

Test Year 1974

West Virginia Operations

Second Tier

A. COST OF SERVICE COMPONENTS

	Operating Revenues	Operating Expenses	Depreciation and Amortization	Taxes Other Than Federal Income Tax	Average Rate Base
	$	$	$	$	$
As Adjusted for Period from August 28, 1975 through April 30, 1976 ..	176,075,074	106,891,018	17,334,859	16,070,016	488,550,995
Adjustments:					
Coal Expense @ 1.04¢ per BTU		3,042,433			
April, 1976 Wage Adjustment		1,147,678			
Insurance and Postage Adjustment		236,755			
Increase in F.I.C.A. Base				77,396	
Payroll Taxes on April Wage Adjustment..				68,597	
Working Cash Adjustment					425,912
As Adjusted	176,075,074	111,317,884	17,334,859	16,216,009	488,976,907

B. COST OF SERVICE AND REVENUE DEFICIENCY

Allowance for Return @ 9.25%	$ 45,719,341
Operation and Maintenance Expenses	111,317,884
Depreciation and Amortization	17,334,859
Federal Income Tax	4,596,410*
Other Taxes—Before Additional Business & Occupation Tax	16,216,009
Additional Business and Occupation Tax	1,210,470*
Total Cost of Service	$196,394,973
Revenue Deficiency	$ 20,309,899

* Calculated after other adjustments.

APPENDIX D

APPALACHIAN POWER COMPANY

CASE No. 8182

COMPARISON OF JURISDICTIONAL DELIVERIES AND UNIT REVENUES

1971-1976

	West Virginia			Virginia			Federal Power Commission Jurisdiction										
							Account 447—Sales For Resale			Interchange-Out To Affiliates			Interchange-Out Non-Affiliates		Total	Receipts/ Kwh*	
	Volume	Revenue	Revenue/ Kwh	Volume	Revenue	Revenue/ Kwh	Volume	Revenue	Revenue/ Kwh	Volume	Receipts	Receipts/ Kwh	Volume	Receipts	Volume		
	Mwh	(000) $	% ¢	Mwh	(000) $	% ¢	Mwh	(000) $	% ¢	Mwh	(000) $	% ¢	Mwh	(000) $		% ¢	
1971	7,407,817	99,554	1.34	6,216,874	89,532	1.44	3,786,979	34,785	.92	2,140,368	15,053	.70	573,872	Not Available	6,501,219	.8	
1972	7,661,245	109,044	1.42	6,512,655	98,818	1.52	4,793,612	44,927	.94	6,974,529	39,828	.57	505,914	Not Available	12,274,055	.7	
% Increase — 1971	3.4	9.5	6.0	4.8	10.4	5.6	26.6	29.2	2.2	225.9	164.6	(18.6)	(12.0)		88.8	(14.3)	
1973	8,043,103	118,586	1.47	7,091,705	109,523	1.54	5,681,406	52,169	.92	8,835,857	52,473	.59	587,121	Not Available	15,104,384	.7	
% Increase — 1971	8.6	19.1	9.7	14.1	22.3	6.9	50.0	50.0	0.0	312.8	248.6	(15.7)	2.3		132.3	(14.3)	
1974	8,225,366	169,106	2.06	7,244,332	156,902	2.17	5,704,296	86,203	1.51	7,902,412	97,272	1.23	710,300	Not Available	14,317,008	1.3	
% Increase — 1971	11.0	69.9	53.7	16.5	75.2	50.7	50.6	147.8	64.1	269.2	546.2	75.7	23.8		120.2	60.7	
1975	8,175,885	203,248	2.48	7,356,712	184,022	2.50	6,824,645	113,642	1.67	6,654,970	78,908	1.19	606,466	Not Available	14,086,081	1.4	
% Increase — 1971	10.4	104.2	85.1	18.3	105.5	73.6	80.2	226.7	81.5	210.9	424.2	70.0	5.7		116.7	70.2	
1976	8,745,946	230,789	2.64	7,875,839	212,007	2.69	9,159,250	156,897	1.71	5,961,996	77,806	1.30	623,347	Not Available	15,744,593	1.5	
% Increase — 1971	18.1	131.8	97.0	26.7	136.8	86.8	141.9	351.0	85.9	178.6	416.9	85.7	8.6		142.2	84.5	

NOTE: *Average of Credits to Account 447 and Interchange-Out to Affiliates

Recapitulation of FPC Jurisdictional Energy Sales

	1971	1976	Incremental Growth
	Mwh	Mwh	Mwh
Sales for Resale	3,786,979	9,159,250	5,372,271
Interchange-Out			
—Affiliates	2,140,368	5,961,996	3,821,628
—Non-Affiliates	573,872	623,347	49,475
	6,501,219	15,744,593	9,243,374

Recapitulation of Total Energy Sales

	1971	1976	Incremental Growth	Percent
	Mwh	Mwh	Mwh	%
West Virginia	7,407,817	8,745,946	1,338,129	18.1
Virginia	6,216,874	7,875,839	1,658,965	26.7
Federal Power Commission	6,501,219	15,744,593	9,243,374	75.9
	20,125,910	32,366,378	12,240,468	100.0

APPENDIX E

APPALACHIAN POWER COMPANY

ENERGY—KWH—WEST VIRGINIA

Year	Residential	Incremental % From 1971	Commercial	Incremental % From 1971	Industrial	Incremental % From 1971	Other*	Incremental % From 1971	Total	Incremental % From 1971
1971 ...	1,758,171,438	—	1,180,762,191	—	4,444,695,756	—	95,238,512	—	7,478,867,897	—
1972 ...	1,897,943,511	7.9	1,277,480,451	8.2	4,460,818,707	0.3	100,160,011	5.1	7,736,402,680	3.4
1973 ...	2,119,631,626	20.6	1,388,133,247	17.6	4,509,108,839	1.5	99,153,320	4.1	8,116,027,032	8.5
1974 ...	2,759,265,580	28.5	1,376,687,421	16.6	4,562,796,849	2.7	101,332,651	6.4	8,300,082,501	11.0
1975 ...	2,412,918,831	37.2	1,462,180,687	23.9	4,271,990,226	(3.9)	109,855,026	15.3	8,256,944,770	10.4
1976 ...	2,642,568,133	50.3	1,560,540,509	32.2	4,512,265,998	1.5	117,998,446	23.8	8,833,373,086	18.1

NOTE: * Includes Public Street Lighting, Other Sales to Public Authorities and Sales for Resale.

APPENDIX E—(Continued)

APPALACHIAN POWER COMPANY

REVENUE—$—WEST VIRGINIA

Year	Residential	Incremental % From 1971	Commercial	Incremental % From 1971	Industrial	Incremental % From 1971	Other*	Incremental % From 1971	Total	Incremental % From 1971
1971	36,720,127	—	22,579,790	—	42,000,677	—	1,672,022	—	102,972,616	—
1972	42,746,386	16.4	26,230,008	16.2	47,643,707	13.4	1,793,579	7.2	118,413,680	15.1
1973	47,391,095	29.1	28,709,876	27.2	50,479,767	20.2	1,951,371	16.7	128,532,109	24.9
1974	63,681,382	73.4	36,892,668	63.4	77,588,301	84.7	2,455,118	46.8	180,617,469	75.5
1975	77,669,551	111.5	45,520,195	101.7	92,740,903	120.8	2,804,675	67.7	218,735,324**	112.5
1976	85,071,837	131.6	49,558,673	119.5	94,893,789	125.9	2,821,471	68.7	232,345,770	125.7

NOTE: * Includes Public Street Lighting, Other Sales to Public Authorities and Sales for Resale.

** Includes 7,041,808 Estimated Overrecovery of Fuel Component.

APPENDIX F

APPALACHIAN POWER COMPANY

Comparison of Rates

	I	II	III	IV	V
				Final Commission Approved Rates—Case No. 8182	
	Rates filed pursuant to order dated 8/9/76 in Case No. 7083. Reopened Effective 4/1/75-8/27/75	Lawful Base Rates as of 8/27/75*	Net Rates filed in Case No. 8182**	Effective 8/28/75 through 4/30/76	Effective on and after 5/1/76
	¢/Kwh	¢/Kwh	¢/Kwh	¢/Kwh	¢/Kwh
Tariff C.L.P. (Combined Light & Power) Primary (50 x Capacity) Secondary (Excess over Primary)	Since no customers were being served under this rate schedule it was not submitted by the company.		Discontinued	Discontinued	
First 5,000 Kwhrs					
Next 5,000 Kwhrs					
Over 10,000					
Minimum Charge					
Tariff R.S. (Residential Service)					
First 30 Kwhrs per month	6.169	5.918	6.92426	5.918	5.918
Next 40	5.156	4.905	6.01326	5.338	5.476
Next 130	3.535	3.284	4.07626	3.574	3.666
Next 300	2.623	2.372	2.93726	2.581	2.648
Next 1,000	2.319	2.068	2.48126	2.251	2.309
Over 1,500	2.116	1.865	2.25326	2.030	2.082
Minimum	$ 1.50	$ 1.50	$ 2.50	$ 2.50	$ 2.50
Water Heater Service					
Last 400 Kwhrs per month	2.116	1.865	2.25326	2.030	2.082
Tariff G.S. (General Service) 50 x Monthly Demand					
First 30 Kwhrs	6.169	5.918	7.31226	6.456	6.630
Over 30	4.903	4.652	5.73926	5.078	5.217
Next 150 x Monthly Demand					
First 3,000 Kwhrs	3.535	3.284	4.03126	3.590	3.689
Over 3,000	2.623	2.372	2.90326	2.597	2.671
Over 200 x Monthly Demand	2.116	1.865	2.26526	2.046	2.105
Minimum Charge	$ 1.50	$ 1.50	$ 2.50	$ 2.50	$ 2.50

Notes:

* Not filed because of coincidental effectiveness of proposed No. 8182 rates.

** Filed rates adjusted for credit of .25074¢/Kwh.

APPALACHIAN POWER COMPANY

Comparison of Rates

	I	II	III	IV	V
				Final Commission Approved Rates—Case No. 8182	
	Rates filed pursuant to order dated 8/9/76 in Case No. 7083. Reopened Effective 4/1/75-8/27/75	Lawful Base Rates as of 8/27/75*	Net Rates filed in Case No. 8182**	Effective 8/28/75 through 4/30/76	Effective on and after 5/1/76
	¢/KWH	¢/KWH	¢/KWH	¢/KWH	¢/KWH
Tariff C.I.P. (Commercial-Industrial) formerly C.P.O. (Capacity Power-Optional)					
First 30 x Monthly Demand	5.566	5.315	6.56026	5.800	5.957
Next 170 x Monthly Demand:					
First 3,000 Kwhrs	3.266	3.015	3.70026	3.297	3.389
Next 3,000	3.064	2.813	3.44926	3.077	3.164
Next 4,000	2.861	2.610	3.19926	2.856	2.937
Next 10,000	2.658	2.407	2.93726	2.636	2.711
Next 80,000	2.456	2.205	2.68626	2.416	2.485
Over 100,000	2.253	2.002	2.43626	2.195	2.258
Next 160 x Monthly Demand	1.858	1.607	1.94626	1.765	1.817
Over 360 x Monthly Demand	1.655	1.404	1.69526	1.544	1.591
Minimum Charge	$ 2.00/KVA	$ 2.00/KVA	$ 2.00/KVA	$ 2.00/KVA	$ 2.00/KVA
Tariff P.S.O. (Public School-Optional)					
All Energy	3.636	3.385	4.14926	3.700	3.803
Minimum Charge	$ 2.50	$ 2.50	$ 2.50	$ 2.50	$ 2.50
Tariff E.H.G. (Electric Heating General)					
First 200 Kwhrs	4.143	3.892	4.78826	4.281	4.368
Next 6,800	2.623	2.372	2.90326	2.597	2.671
Over 7,000	2.319	2.068	2.51526	2.267	2.332
Each Kw Demand in Excess of 30	$ 1.27	$ 1.27	$ 1.57	$ 1.38	$ 1.42
Minimum Charge	$ 8.29	$ 7.78	$10.08	$ 8.56	$ 8.74
Tariff S.S. (School Service)					
First 500 Kwhrs per Classroom	3.636	3.385	4.19026	3.700	3.803
Balance	1.812	1.561	1.91126	1.715	1.766
Minimum Charge	$ 2.50	$ 2.50	$ 2.50	$ 2.50	$ 2.50

Notes:

* Not filed because of coincidental effectiveness of proposed No. 8182 rates.

** Filed rates adjusted for credit of .25074¢/Kwh.

APPENDIX F—(Continued)

APPALACHIAN POWER COMPANY

COMPARISON OF RATES

	I	II	III	IV Final Commission Approved Rates—Case No. 8182	V Final Commission Approved Rates—Case No. 8182
	Rates filed pursuant to order dated 8/9/76 in Case No. 7083. Reopened Effective 4/1/75-8/27/75	Lawful Base rates as of 8/27/75*	Net Rates filed in Case No. 8182**	Effective 8/28/75 through 4/30/76	Effective on and after 5/1/76
	¢/KWH	¢/KWH	¢/KWH	¢/KWH	¢/KWH
Tariff C.S. (Church Service)					
First 40 KWHrs per month	6.169	5.918	7.31226	6.456	6.630
Next 85	5.156	4.905	6.04726	5.354	5.499
Next 375	3.839	3.588	4.40626	3.921	4.029
Next 500	2.927	2.676	3.27926	2.928	3.011
Over 1,000	2.623	2.372	2.90326	2.597	2.671
Minimum Charge	$ 1.50	$ 1.50	$ 2.50	$ 2.50	$ 2.50
Tariff C.P. (Capacity Power—Wholesale)			Discontinued		
100 x Contract Capacity:			"	4.411	4.533
100 x First 50 Kva	4.290	4.039	"	3.969	4.079
100 x Next 50 Kva	3.884	3.633	"	2.867	2.948
100 x Next 50 Kva	2.871	2.620	"	2.647	2.723
100 x Next 150 Kva	2.669	2.418	"	2.426	2.496
100 x Over 300 Kva	2.466	2.215	"		
Excess of 100 x Capacity:			"	2.415	2.485
First 50,000 KWHrs	2.456	2.205	"	2.304	2.371
Next 50,000	2.354	2.103	"	2.194	2.258
Next 200,000	2.253	2.002	"	2.140	2.203
Over 300,000	2.203	1.952	"	$25.95/KVA	$26.80/KVA
Minimum Charge	$24.00/KVA	$24.00/KVA			

NOTES:

* Not filed because of coincidental effectiveness of proposed No. 8182 rates.

** Filed rates adjusted for credit of .25074¢/KWH.

APPALACHIAN POWER COMPANY
Comparison of Rates

	I	II	III	IV	V
				Final Commission Approved Rates—Case No. 8182	
	Rates filed pursuant to order dated 8/9/76 in Case No. 7083. Reopened Effective 4/1/75-8/27/75	Lawful Base Rates as of 8/27/75*	Net Rates filed in Case No. 8182**	Effective 8/28/75 through 4/30/76	Effective on and after 5/1/76
	¢/Kwh	¢/Kwh	¢/Kwh	¢/Kwh	¢/Kwh
Tariff T.P. (Transmission Power) For 34.5-69 KV Delivery Voltage					
First 25,000 KVA Demand	$ 6.076	$ 5.324	$ 6.46478	$ 5.793	$ 5.943
Over 25,000 KVA Demand	$ 5.832	$ 5.080	$ 6.15678	$ 5.528	$ 5.671
For 138 KV Delivery Voltage					
First 25,000 KVA Demand	$ 5.934	$ 5.182	$ 6.28178	$ 5.639	$ 5.785
Over 25,000 KVA Demand	$ 5.782	$ 5.030	$ 6.09978	$ 5.473	$ 5.615
Secondary—All Voltage					
Energy in Excess of 300 Kwhrs per KVA Demand	$ 0.01448	$ 0.01197	$ 0.0143326	$ 0.01318	$ 0.01360

Notes:

* Not filed because of coincidental effectiveness of proposed No. 8182 rates.

** Filed rates adjusted for credit of .25074¢/Kwh.

APPALACHIAN POWER COMPANY

Comparison of Rates

	I	II	III	IV	V
				Final Commission Approved Rates—Case No. 8182	
	Rates filed pursuant to order dated 8/9/76 in Case No. 7083. Reopened Effective 4/1/75-8/27/75	Lawful Base Rates as of 8/27/75*	Net Rates Filed in Case No. 8182**	Effective 8/28/75 through 4/30/76	Effective on and after 5/1/76
	¢/KWH	¢/KWH	¢/KWH	¢/KWH	¢/KWH
Tariff L.P. (Large Power)					
First 30 x Monthly Demand	5.566	5.315	Discontinued	5.7994	5.957
Next 170 x Monthly Demand:					
First 3,000 Kwhrs	3.266	3.015	"	3.297	3.389
Next 3,000	3.064	2.813	"	3.077	3.164
Next 4,000	2.861	2.610	"	2.856	2.937
Next 10,000	2.658	2.407	"	2.635	2.710
Next 80,000	2.456	2.205	"	2.415	2.485
Over 100,000	2.253	2.002	"	2.194	2.258
Next 160 x Monthly Demand	1.858	1.607	"	1.765	1.817
Over 360 x Monthly Demand	1.655	1.404	"	1.544	1.591
Minimum Charge	$ 1.30/Kva	$ 1.30/Kva	"	$ 1.41	$ 1.45
Tariff L.C.P (Large Capacity Power)					
First 1,000 Kw Monthly Demand	$ 7.463	$ 6.673	$ 8.141	$ 7.261	$ 7.450
Next 3,000	$ 6.967	$ 6.177	$ 7.514	$ 6.722	$ 6.896
Over 4,000	$ 6.450	$ 5.660	$ 6.876	$ 6.159	$ 6.319
Energy in Excess of 315 Kwhrs Per Kw Demand	$ 0.01579	$ 0.01328	$ 0.0160426	$ 0.01461	$ 0.01506
Reactive Demand Charge	$ 0.25	$ 0.25	$ 0.32	$ .27	$ 0.28
Tariff I.R.P. (Interruptible Power)					
Demand Charge:					
Kw Demand	$ 0.676	$ 0.676	$ 0.841	$ 0.736	$ 0.755
Kvar Demand	$ 0.25	$ 0.25	$ 0.32	$ 0.27	$ 0.28
Energy Charge	$ 0.01499	$ 0.01248	$ 0.0149926	$ 0.01374	$ 0.01417

Notes:

* Not filed because of coincidental effectiveness of proposed No. 8182 rates.

** Filed rates adjusted for credit of .25074¢/KWH.

APPENDIX F—(Continued)

APPALACHIAN POWER COMPANY

Comparison of Rates

	I	II	III	IV	V
				Final Commission Approved Rates—Case No. 8182	
	Rates filed pursuant to order dated 8/9/76 in Case No. 7083. Reopened Effective 4/1/75-8/27/75	Lawful Base rates as of 8/27/75*	Net Rates filed in Case No. 8182**	Effective 8/28/75 through 4/30/76	Effective on and after 5/1/76
	¢/Kwh	¢/Kwh	¢/Kwh	¢/Kwh	¢/Kwh
Tariff H.L.P. (High Load Factor Power)					
For 34.5-69 KV Delivery Voltage					
First 67,000 KW Demand	$10.287	$ 8.783	$10.61456	$ 9.557	$ 9.805
Next 33,000 KW	$10.044	$ 8.540	$10.30656	$ 9.293	$ 9.534
Over 100,000 KW	$ 9.922	$ 8.418	$10.15856	$ 9.160	$ 9.397
For 138 KV Delivery Voltage					
First 67,000 KW Demand	$10.206	$ 8.701	$10.51156	$ 9.468	$ 9.714
Next 33,000 KW	$ 9.993	$ 8.488	$10.23856	$ 9.238	$ 9.477
Over 100,000 KW	$ 9.873	$ 8.368	$10.09056	$ 9.105	$ 9.341
Secondary—All Voltage					
Energy in Excess of 600 KWHrs per KW Demand	$ 0.01411	$ 0.01160	$ 0.0138720	$ 0.01279	$ 0.01318
Demand Charge	$ 0.25	$ 0.25	$ 0.32	$ 0.27	$ 0.28
Tariff O.L. (Outdoor Lighting)					
Each 7,000 Lumen Mercury	$ 4.22	$ 4.74	$ 5.92	$ 5.16	$ 5.29
Each 11,000 Lumen Mercury	$ 5.53	$ 6.25	$ 7.83	$ 6.80	$ 6.98
Each 20,000 Lumen Mercury	$ 6.59	$ 7.74	$ 9.81	$ 8.42	$ 8.64
Each 2,500 Lumen Incandescent	$ 3.16	$ 3.63	$ 4.58	$ 3.95	$ 4.05
Each 4,000 Lumen Incandescent	$ 3.69	$ 4.42	$ 5.65	$ 4.81	$ 4.93
Each 7,000 Lumen Mercury on 12′ Post	$ 5.00	$ 5.52	$ 6.87	$ 6.00	$ 6.16
Rider A (Credit Surcharge)					
Credit applied to RS, GS, CS, CP, CIP, PSO, EHG, TP, SS, LP, LCP, IRP & HLP for each Kwh used	$ .0000673	Not Applicable	Not Applicable	Not Applicable	Not Applicable

NOTE:

* Not filed because of coincidental effectiveness of proposed No. 8182 rates.

** Filed rates adjusted for credit of .25074¢/Kwh.

APPENDIX F—(Continued)

APPALACHIAN POWER COMPANY

Comparison of Rates

	I	II	III	IV	V
				Final Commission Approved Rates—Case No. 8182	
	Rates filed pursuant to order dated 8/9/76 in Case No. 7083. Reopened Effective 4/1/75-8/27/75	Lawful Base rates as of 8/27/75*	Net Rates filed in Case No. 8182**	Effective 8/28/75 through 4/30/76	Effective on and after 5/1/76
	¢/KWH	¢/KWH	¢/KWH	¢/KWH	¢/KWH
Tariff R.E. (Rural Line Extension)					
Tariffs Applied	Applicable Tariff	Applicable Tariff	Applicable Tariff	Applicable Tariff	
Minimums:					
Per Customer Per Month	$ 2.50	$ 2.50	$ 4.00	$ 4.00	$ 4.00
Per Mile Per Month	$ 10.00	$ 10.00	$ 18.50	$ 18.50	$ 18.50
Minimum Excluded if Gross Annual Revenue Per Mile Exceeds	$500.00	$500.00	$775.00	$775.00	$775.00
Tariff T.S. (Temporary Service)					
Tariffs Applied	Applicable Tariff	Applicable Tariff	Applicable Tariff	Applicable Tariff	
Special Terms	Available in Cases Where Provisions of Applicable Tariff Would Normally Preclude Service of a Temporary Nature.				

APPENDIX G

APPALACHIAN POWER COMPANY
(CASE NO. 8182)

Certain portions of the "Terms and Conditions of Service" in Appalachian's tariff filing designated W.Va. P.S.C. Tariff No. 3 in Original Sheet Nos. 3-1, 3-2, 3-3, 3-4 and 3-5 are to be modified as follows:

Original Sheet No. 3-1

"APPLICATION"—This paragraph shall be broadened to comply with Section 4.01 (2) and (3) of the "Rules and Regulations for the Government of Electric Utilities" (referred to hereinafter as the "Electric Rules") promulgated by the Commission as of March 1, 1977.

"DEPOSITS"—This paragraph shall be modified to conform with Section 4.02 of the Electric Rules of the Commission.

Original Sheet Nos. 3-1 and 3-2

"PAYMENTS"—This section shall be broadened to comply with Section 4.08 (1) (a) (4) of the Commissioner's Electric Rules requiring the utility to accept payment at the customer's premises in lieu of discontinuing service.

Original Sheet No. 3-2

"SERVICE CONNECTIONS"—This section shall be modified to exclude residential customers from the requirement that the customer's wiring shall be brought outside the building wall nearest the Company's service wires. Moreover, our ruling on this section, is subject to Order in pending Case No. 8455, involving the Company, which will be issued soon.

Original Sheet No. 3-3

"COMPANY'S LIABILITY"—This section is subject to our Order in pending Case No. 8455, which will be issued soon.

Original Sheet Nos. 3-3 and 3-4

"EXTENSION OF SERVICE"—This section shall be modified to contain the substance of Appalachian's tariff, Original Sheet Nos. 3-6 and 3-7 filed in Virginia as part of the Company's Va. S.C.C. Tariff No. 7, issued June 2, 1975.

Original Sheet No. 3-4

"USE OF ENERGY BY CUSTOMER"—This section shall be modified so as to (1) exclude residential customers from the requirement that customers shall not add to the equipment or load of the residence except by consent of the Company, (2) the Company shall be the "initial" judge, but *not* the "sole" judge as to the suitability of apparatus and appliances and (3) The Public Service Commission of West Virginia shall be the proper forum for any disputes under this section which cannot be satisfactorily settled between the Company and its customer.

Original Sheet No. 3-5

"POWER FACTOR OF LIGHTING EQUIPMENT"—This section shall be modified to comply with Section 5.07 of the Commission's Electric Rules.

"DOMESTIC SERVICE"—This section shall be modified to provide that larger motors may be served when in the Company's "initial", not "sole" judgment, the existing service facilities of the Company are adequate.

Original Sheet No. 3-5

"DENIAL OR DISCONTINUANCE OF SERVICE"—This section shall be modified (1) to excuse residential customers whose service is discontinued for reasons stated in the section from paying a minimum bill after such discontinuance, and (2) the section shall be modified to conform to Section 4.08 of the Commission's Electric Rules.

Sheet 2 of 2
(Appendix G)
[Continued]

"Reconnection Charge"—This section shall be amended to reduce the reconnection charge for residential and general service customers to $5.50 as was contained in the tariff provisions in effect prior to the Company's W. Va. P.S.C. Tariff No. 3, because of failure of proof.

"General"—This section shall be amended to refer to the Commission's Electric Rules, revised as of March 1, 1977, and to be effective May 16, 1977.

PUBLIC SERVICE COMMISSION OF WEST VIRGINIA

Charleston

At a session of the Public Service Commission of West Virginia, at the Capitol in the City of Charleston on the 9th day of May, 1977.

Case No. 8182

Appalachian Power Company, a corporation.

In the matter of increased rates and charges.

Corrective Order

Whereas, by order entered herein on May 6, 1977, certain typographical errors have been noted and should be corrected, as follows:

Page 3—Third line from bottom, change "makes" to "make";
Page 4—Tenth line from bottom, change "Column I" to "Column II";
Page 33—Last line, change "75.9%" to 75.5%" [sic];
Page 34—First line, change "12,340,468,000" to "12,240,468,000 [sic];
Second line, change "18.1%" to "or 10.9% of total growth";
Third line, change "26.7% [sic] to "or 13.6% of total growth";
Third line from bottom, change "interchang-" to "interchange-";
Page 42—Eighth line, change "above" to "below";
Appendix C—under part B — change "9.25%" to "9.35%";
Appendix D—Under "Recapitulation of Total Energy Sales", Percent Column, change "18.1%" to

"10.9%" for W. Va.; "26.7%" to "13.6%" for Virginia and "75.9%" to "75.5%" for FPC; and

Appendix E, Sheet 1 of 2—change percentage growth in 1974 residential sales "28.5%" to "56.9%".

and that in all other respects, the said order of May 6, 1977, shall remain in full force and effect.

A Copy.

Teste:

s/ S. Grover Smith, Jr.
S. Grover Smith, Jr.
Secretary

PUBLIC SERVICE COMMISSION OF WEST VIRGINIA

Charleston

At a session of the Public Service Commission of West Virginia, at the Capitol in the City of Charleston on the 29th day of July, 1977.

Case No. 8182

Appalachian Power Company, a corporation.
In the matter of increased rates and charges.

ORDER DENYING IN PART AND GRANTING IN PART PETITION FOR REHEARING, REOPENING OF THE RECORD, AND REARGUMENT AND CLARIFYING ORDER ISSUED MAY 6, 1977.

Post-Decisional Procedure

On May 6, 1977, this Commission issued its final order covering a multitude of subsidiary issues in ratemaking, which allowed some rate relief but not all of the rate relief requested and, among other things, ordered Appalachian Power Company to refund excess collections of revenues with interest thereon at the annual rate of 7¾%.

On May 16, 1977, Appalachian filed its Petition for Rehearing, Reopening of the Record, and Reargument, with affidavits of Gerald P. Maloney, Morris E. McCrary, Peter J. DeMaria and Michael Brown McNulty, officers or employees of Appalachian or its affiliates. On May 23, 1977, Appalachian filed supplementary affidavits of Gerald Blackmore and Morris E. McCrary.

Appalachian's Petition for Rehearing, etc., requested modification of the Commission's order of May 6, 1977, to the effect that

(1) the rates determined upon a 9.35% rate of return were too low;

(2) the Commission had erred in its disposition of subsidiary issues pertaining to (a) consolidated tax savings, (b) capacity equalization adjustment, (c) jurisdictional cost allocation;

(3) the Commission should permit Appalachian to have a Third-Tier Rate Level increase effective May 1, 1977, on the basis of (a) purported increases in its cost of coal, (b) purported wage increases which became effective April 1, 1977, and (c) its continuing investment in pollution control facilities after August 1975; and

(4) the Commission should modify ordering paragraphs 4 and 5 of its order, so as (a) to give Appalachian 15 days after final determination on the relief requested by its Petition for Rehearing, etc., and (b) to delay the completion of refunds to a date 60 days from the date revised tariff sheets are finally approved by the Commission.

In addition, representatives of Appalachian informally raised the question with the Staff of the Commission as to how incidental details of the filed tariff sheets, not commented upon specifically in the Commission order, should be treated when the utility files its tariff sheets in compliance with our order. These incidental matters will be taken up on our own motion as a clarification of our order issued May 6, 1977.

COMMENT

We turn now to a discussion of the issues raised.

Consolidated Tax Saving

Appalachian's contentions against the Commission's order on the issue of the proper adjustment to Federal income tax to reflect a test year sharing of tax savings from filing a consolidated tax return by its parent, American Electric Power, Inc., are based upon a misunderstanding or misrepresentation of our order.

Appalachian erroneously characterizes the staff method approved by our order,—that the "approach assumes that the Parent's tax loss and thus the savings enjoyed by Appalachian will increase in proportion to increases in Appalachian's taxable income". This is Appalachian's view, not that of the Commission and its staff.

The method approved by the Commission is to use the *actual tax savings* associated with filing consolidated income tax returns over a three-year period prior to the test period in order to calculate a reasonable allowance for consolidated tax savings in ratemaking. Because of the many variables involved and the difficulty in projecting actual income tax savings to be experienced in future tax periods, the Commission exercises its discretion and judgment to make a fair adjustment for this cost item.

The Commission did *not* use "$4,100,837 of consolidated tax savings which was determined by applying a percentage factor (23%) to Appalachian's pro forma taxable income to derive Appalachian's allocated portion of the tax loss generated by Appalachian's Parent". Contrary to Appalachian's erroneous statement, the Commission reflected a tax savings for Appalachian of $1,197,747 for the first-tier rates and $1,204,818 for the second-tier rates, *not* $4,100,837. The recital of "$4,100,837 tax savings allocated to West Virginia" on page 28 of our order issued May 6, 1977, refers to a dollar figure based on the higher rates the Company asked for, and *not* on the lower rates the Commission granted.

Appalachian's rejected approach baldly assumes a non-variable Parent tax loss, without any evidentiary support.

We reject Appalachian's contentions on this issue and rely on the principle that where a projection of future Federal income tax savings is not known and measurable, the averaging method of projecting a tax savings is a conservative and fair way of determining the same.

Capacity Equalization Adjustment

Appalachian contends against the Commission's adjustment to test year purchased power expense in crediting adjusted (higher) test year revenues due to a June 1975 rate increase under the "Capacity Equalization Agreement" regulated by the Federal Power Commission. Its argument is grounded on its belief that by becoming a net purchaser of AEP System power after the test year, it should not have its test year purchased power expenses decreased by adjusted revenues based on a known and measurable FPC rate increase in June 1975 in the AEP System's Capacity Equalization Agreement.

Adjustments to test year revenues and expenses in ratemaking are largely discretionary to the regulator. In order to avoid arbitrary decisions, regulators usually confine their adjustments to "known and measurable" changes in revenues and costs. We followed that principle in our treatment of this issue. Appalachian, on the other hand, wants us to refrain from exercising our discretion, because of post-test year changes in AEP System power supply and usage which are ephemeral, and, even if "known", are *not* "measurable" within the context of the test year used in this proceeding.

Appalachian erroneously argues that the Commission is bound by one method of cost apportionment; namely, the "non-jurisdictional revenues credit to cost of service" method. To the contrary, not only are there many valid methods of jurisdictional cost apportionment, but also Appalachian's argument violates the recent teachings of the Supreme Court of the United States, to the effect that while one regulatory jurisdiction may lack authority to fix rates in another jurisdiction, it may determine the costs and take into account the rates in the other jurisdiction, when it fixes the rates in its own jurisdiction. See *FPC vs Conway Corporation,* US , 96 S Ct 1999 (1976). Indeed, the

very purpose of jurisdictional cost apportionment, where there is multiple regulation of a company, is for each jurisdiction to determine for itself the *fair* burdens that the customers it protects shall bear. In exercising this responsibility each jurisdiction has a broad discretion to use or not to use any number of cost apportionment methods, and each is *not* necessarily bound by the methods used by other jurisdictions, either Federal or State. If the Public Service Commission of West Virginia is not free to accept or reject the "revenue credit" method of cost apportionment, it would have lost an important element of its rate regulatory powers by the *indirect* encroachment of another regulatory body, and this would be counter to the intent of the various statutes which separate Federal and State rate regulation responsibilities.

The essence of Appalachian's argument is that it insists that this Commission cannot make any adjustments to test year figures, unless it makes all of the adjustments which are favorable to Appalachian, even though the basis for the additional adjustments are not *measurable* within the context of the 1974 test year.

For example, Appalachian makes a loose statement in its Petition that

> "The fact that Appalachian became a *capacity* deficient company within the AEP Power Pool in 1975 is a known change which even without Modification No. 3 substantially *increased* the Company's production expense over the test year level."

To the contrary, our regulation of Appalachian in the concurrent Cabin Creek Plant Case No. 8961 informs us that Appalachian was not a *capacity* deficient company within the AEP Power Pool in 1975, but instead started to become a *net purchaser of kilowatt-hours of energy* from the AEP Pool.

Appalachian continues its slant by stating that

> "Because of the difficulty of quantifying all the associated changes for ratemaking purposes, Appalachian has never sought an adjustment for this known change for test year experience."

Thus, this admission contains the general truth that an adjustment of gross sales and gross purchase volumes of energy *for the future,* resulting in a shift for Appalachian to become a *net seller* rather than a *net purchaser* of system power, are not only unpredictable, but more important, would reflect a total change in Appalachian and in system power supply and usage and concomitant revenues and costs. The Commission made a reasonable adjustment based on a "known and measurable" change in the FPC rate contained in the Capacity Equalization Agreement. Although *future* allocations in ratemaking may increase production expenses by the "revenue credit" method, also in that *future* rate case Appalachian may have purchased more power under its Capacity Equalization Agreement which it would have resold to its customers at a profit.

We reject Appalachian's assertions on this issue and reconfirm our discretionary adjustment to the production cost component in our order of May 6, 1977.

Jurisdictional Cost Apportionment

Appalachian continues to object to a step in jurisdictional cost apportionment which assigns a small portion of its costs to its short-term, limited-term and unit-power sales which were served during the test year as part of the annual and peak requirements. Appalachian wants to credit the revenues from these FPC jurisdictional sales to its cost of service, in similar fashion as was done relative with net revenues from affiliates under the Capacity Equalization Agreement. We could have used this method but we exercised our discretion to use a cost apportionment

method based on *actual test year and peak hour usage* by the short-term, limited-term and unit-power customers.

We thoroughly discussed Appalachian's contentions on this issue in our order of May 6, 1977, except for Appalachian's new argument that

> ". . . on January 17, *1977*, the date of maximum demand on Appalachian's and AEP's systems this past winter, neither Appalachian nor American Electric Power made any short-term or limited-term sales."

Again, this is an indirect attempt by Appalachian to shift from a *1974* test year to one that would include January *1977*. In the context of a new rate case based on a new set of complicated circumstances, the method approved by the Commission would still be one of several valid methods of cost apportionment. In a test year, including a January 17, 1977 peak, under the method approved in this Case No. 8182, the short-term and limited-term customers would *not* be assigned a portion of Appalachian's *demand* costs if they took no power during the peak hour, but they would be the *commodity* costs on the basis of allocation factors determined from test year sales to them. However, in that next rate case we will look at *Appalachian's capacity* situation and if it has or soon anticipates increased capacity from its 1301 Project at New Haven, West Virginia, we may adopt a different method of cost apportionment, such as the Average and Excess Demand method which we ordered to be filed by ordering paragraph 7 of our order dated May 6, 1977.

We adhere to our findings and conclusions on this issue as set forth in our said final order.

Third-Tier Rates

Appalachian requests the Commission to establish higher *Third-Tier* rates to be effective on and after May 1, 1977. As a basis for this request it argues that its costs of (1)

coal, (2) labor, and (3) pollution control facilities are presently escalating over the cost increase adjustments we allowed in determining First-Tier rates for August 28, 1975, through April 30, 1976, and Second-Tier rates for May 1, 1976, through April 30, 1977.

Putting this request in perspective, we reiterate that the test year selected by the Company for Case No. 8182 was *1974*; unaudited *1975* data was received in evidence as an aid to assure ourselves of the reasonableness of our adjustments to 1974 test year data. The evidentiary hearings closed August 31, *1976*. We adopted the rare technique of establishing two sets of rates to be effective on and after two dates, because of the passage of time since the filed rates went into effect on August 28, 1975, and the date of our final order of May 6, 1977.

Appalachian now wants us to set higher rates in this Case No. 8182, for the period beginning May 1, 1977, on the basis of three cost component changes out of the multitude of revenue and cost changes that have occurred and are occurring as of July 1977.

We refuse to exercise our discretion to grant this request for many reasons, chief among which is that (1) the West Virginia customers of Appalachian deserve a modicum of rate stability, even if confined to the statutory lag period built in to our controlling statute, Code 24-2-4, and (2) the purported increased costs relied upon relate to the time periods too far beyond the end of the test period of 1974 to be the basis of a rate adjustment without entertaining a new test period study.

Appalachian recites increased fuel costs as a reason for higher Third-Tier rates. However, this ignores our caution at page 11 of our order issued May 6, 1977 that Appalachian "may be made to absorb any unreasonable differential between the price it pays for coal to its affiliated suppliers and to its non-affiliated coal producers". This is an issue

to be resolved in the future. Moreover, in monitoring monthly fuel costs of Appalachian's John Amos plant we have noted wide variations between the percentage ownership of the plant and the percentage of current monthly fuel purchases assigned to Appalachian. For example, for the fifteen-month period December 1976 through April 1977, the "swings" are as follows:

	Appalachian's Ownership Percentage	Appalachian's Fuel Cost Percentage	Differential
December 1976	69.735%	88.027%	18.292%
March 1977	65.550%	51.454%	(14.135%)

These circumstances raise substantial questions that are not susceptible to a *Third-Tier* rate solution in this Case No. 8182.

End Result

Even though our order issued May 6, 1977, balanced the various contentions according to sound regulatory principles and set Two-Tier rates on the basis of a 9.35% rate of return on rate base, Appalachian contends the rates set are too low.

Appalachian's argument rests on two misconceptions. First, it argues that its unaudited and unilateral view of its interest coverage as of March 31, 1977 is 1.99 times (199%) "eliminates Appalachian's legal ability to issue new mortgage bonds or debentures", because the issuance of such new debt requires at least 2.00 times (200%) interest coverage "for 12 consecutive months in the 15-month period immediately prior to the month in which the new debt securities are to be issued."

Second, Appalachian argues that a 9.35% *rate of return on rate base* "implies a return on common equity of but 12.8%", which, it contends, is too low on the evidence of *cost of capital on certain period-ended over-all capitalizations.*

These arguments are rejected as being based upon an unduly narrow view of the facts concerning interest coverage and a misconception of the relationship between the concept of *rate of return on rate base* in ratemaking and the concept of *cost of capital on capitalization* resulting from operations of a fiscal period.

The "interest coverage" test required to raise new debt funds from investors is *not* a test of "confiscation" in deciding whether rates are just and reasonable. The test is no more than a security device used to restrain a company from imprudent future debt financing. As the Commission said in *The Potomac Edison Company, Case No. 8280,* order issued April 25, 1977,

> "The Commission has not accepted and does not accept the proposition that the calculation of an interest coverage ratio and the resulting revenues requirement is a replacement for sound regulatory discretion. The revenue requirement to maintain any coverage ratio is greatly affected by changes in capital structure elemental components. The determination of what capital structure is appropriate for a utility has historically been left to management, and the Commission does not understand the Respondent as recommending otherwise. Therefore, we cannot accept the maintenance of a coverage ratio as a governing factor in ratemaking."

However, even if the "interest coverage" test was considered as an element in determining whether rates were or were not "just and reasonable", Appalachian's argument relying on *its* view of interest coverage on March 31, 1977, is not persuasive. Appalachian's earliest future debt financing would be late summer or early fall 1977. Any fifteen months period immediately prior to the month in which the new debt securities are to be issued, will include increased sales volumes, increased sales revenues due to growth and due to rate increases granted late in June 1977

by the FPC in its Docket No. ER77-325 and sought by Appalachian from the State Corporation Commission of Virginia through current hearings.

Moreover, Appalachian sought and secured approval for higher rates from this Commission on a 1974 test year having rate base costs and cost of service expenses relating to its Cabin Creek generating plant which is the subject of litigation before us and before the Federal courts. Whether or not this Commission prevails in its attempt to prevent Appalachian from prematurely discontinuing this plant from availability for service this coming winter or beyond, there appears to be no question that Appalachian will be able to reduce its costs associated with the Cabin Creek plant below the costs incurred during the test year 1974. To quantify this cost impact we will require Appalachian to provide this Commission with such data as an additional condition to our final order herein.

Finally, Appalachian's confusion in treating *cost of capital on end-of-period capitalization* as a strict determinant of *rate of return on rate base* in ratemaking has been thoroughly discussed at pages 22-25 of our final order herein. See also our discussion in *Hope Natural Gas Company, Case No. 8282,* order issued July 27, 1977, at pages 31-36.

We adhere to our belief that the "end result" of the rates we determined for Appalachian in our order issued May 6, 1977, are eminently just and reasonable.

Modification of Ordering Paragraphs 4 and 5

Appalachian requests that ordering paragraph of our order issued May 6, 1977, be modified to permit Appalachian to file revised tariff sheets 15 days "after final determination on the relief requested in this Petition", instead of 15 days from May 7, 1977. By filing its Petition for Rehearing, etc., seeking modification of ordering paragraph

4, Appalachian effectively tolled the running of the 15 days. We will modify our ordering paragraph 4, to require compliance on or before August 15, 1977.

Applicant requests that ordering paragraph 5 of our final order be modified to permit Appalachian to complete refunds within 60 days from the date such revised tariff sheets are finally approved. For similar reasons, we will modify our ordering paragraph 5 to require refunds to be complete within 60 days after our approval of the revised tariff sheets to be filed pursuant to this order and our order issued May 6, 1977. This means that if Appalachian files the revised tariff sheets on August 15, 1977, and we issue our order the same day approving same, that refunds will be required to be completed on or before October 14, 1977, unless our orders are stayed by a tribunal having jurisdiction so to do.

Clarifications

As additional guidance to incidental items not specifically mentioned in our order issued May 6, 1977, certain additional changes in the filed tariff sheets of W. Va. P.S.C. Tariff No. 3 are required as just and reasonable, consistent with our order, the record made and our recently effective "Rules and Regulations for the Government of Electric Utilities, 1977" as follows:

1. *Original Sheet No. 3-2*—Delete the last paragraph pertaining to a $2.00 or $10.50 service charge as not supported in the record by cost evidence, and see Electric Rule 5.06.

2. *Original Sheet No. 5-1, et al*—In the paragraph on "Equipment Supplied by Customer", change "$0.19" to "$0.17" per KW of monthly billing demand. Make the same adjustment in other schedules where applicable.

3. *Original Sheet No. 7-1, et al*—In the paragraph on "Equipment Supplied by Customer", change

"$0.32" to "$0.28" per KW of monthly billing demand. Make the same adjustment in other schedules where applicable.

4. *Original Sheet No. 10-1*—In the paragraph on "Adjustment of Demand Charge", modify "$0.00147" *to* "$0.00128 per KW of monthly billing demand [etc.]" for the period August 28, 1975, through April 30, 1976, and *to* "$0.00133 per KW of monthly billing demand, [etc.]" for the period May 1, 1976 forward.

5. *Original Sheet Nos. 5-1, 6-2, 7-2, 14 and 15*—Modify the "Payment" paragraph to change "fifteen (15)" to "twenty (20)" days and add a sentence "This delayed payment charge is not interest and is only to be collected once for each bill where appropriate."

6. *Original Sheet Nos. 8-2, 9-2, and 10-2*—Modify the "Payment" paragraph to change "fifteen (15)" to "twenty (20)" days, and change the last clause to read ". . . , customer shall pay Company a delayed payment charge on the total amount billed of 5% (but not less than $0.15). This delayed payment charge is not interest, and is only to be collected once for each bill when appropriate."

7. *Original Sheet Nos. 11-1, 16 and 17*—Modify the "Payment" paragraph to change "fifteen (15)" to "twenty (20)" days.

ORDER

A. The Commission denies Appalachian's request to reopen the evidentiary record, except that the Commission has fully considered the affidavits submitted by Appalachian with its Petition.

B. The Commission orders that paragraph 4 of its order issued May 6, 1977, be revised to extend the time to August 15, 1977, on or before which Appalachian shall file its revised tariff sheets in compliance with this order and our order issued May 6, 1977.

C. The Commission orders that paragraph 5 of its order issued May 6, 1977, be revised to extend the time for

Appalachian to complete its refunds within 60 days after the Commission's approval of the revised tariff sheets required to be filed by August 15, 1977.

D. The Commission hereby adds an ordering paragraph 8, to provide as follows:

8. Appalachian is hereby ordered to file on or before September 15, 1977, cost data for test year 1974 that would pertain both to rate base and over-all cost of service allocated to West Virginia which would be deducted if the Cabin Creek plant had not been in service during the test period 1974.

E. The Commission denies Appalachian's request to determine Third-Tier rates effective May 1, 1977, in this Case No. 8182, and

F. The Commission hereby affirms, as modified herein, its final order issued May 6, 1977.

s/ BROOKS E. SMITH
Chairman

PUBLIC SERVICE COMMISSION OF WEST VIRGINIA

CHARLESTON

At a session of the PUBLIC SERVICE COMMISION OF WEST VIRGINIA, at the Capitol in the City of Charleston on the 26th day of August, 1977.

CASE No. 8182

APPALACHIAN POWER COMPANY, a corporation.
In the matter of increased rates and charges.

WHEREAS, by order entered herein on July 29, 1977, the Commission denied in part and granted in part a petition filed May 16, 1977, for rehearing, reopening of the record, reargument, and clarification of its order issued May 6, 1977; and

WHEREAS, upon due consideration and goods [sic] reasons appearing therefor, the Commission is of opinion and finds that this case should be reopened, set for further evidentiary hearing, and reargument in order to enable the Commission to determine the reasonableness of a third tier rate level increase effective May 1, 1977, on the basis of respondent's purported increases in cost of coal.

IT IS, THEREFORE, ORDERED that this matter be, and it hereby is reopened for further evidentiary hearing for the reason and purpose as above stated, and it is hereby set for further hearing to be held in the Commission's Hearing Room at the Capitol in the City of Charleston on the 27th day of October, 1977, at 9:30 a.m., EDT, at which time and place the respondent shall appear and prosecute its interests herein, and anyone interested may appear and make such objections thereto as may be deemed proper.

IT IS FURTHER ORDERED that the Secretary of the Commission give notice of this proceeding to all parties of record by mailing to each of them a copy of this order by United States Certified Mail, return receipt requested.

Chairman McDonald, deeming himself disqualified, took no part in the consideration or decision of this matter.

A COPY.

TESTE:

s/ S. Grover Smith, Jr.
S. GROVER SMITH, JR.,
Secretary

PUBLIC SERVICE COMMISSION OF WEST VIRGINIA

CHARLESTON

At a session of the PUBLIC SERVICE COMMISSION OF WEST VIRGINIA at the Capitol in the City of Charleston on the 30th day of August, 1977.

CASE No. 8182

APPALACHIAN POWER COMPANY, a corporation.
In the matter of increased rates and charges.

By Commission order entered herein on July 29, 1977, Appalachian Power Company, a corporation, was ordered to file Revised Tariff Sheets by August 16, 1977 in compliance with our Order issued May 6, 1977 and our Order issued July 29, 1977. The Tariff Sheets to be effective August 28, 1975, through April 30, 1976, were to reflect rates and charges set forth in Appendix F of our Order of May 6, 1977, which rates and charges were sufficient to recover an additional $15,380,249 over the annual revenue level produced by rates which were in effect prior to August 28, 1975. The Tariff Schedules to be effective on and after May 1, 1976, were to reflect rates and charges specified in Appendix F of our Order of May 6, 1977, which rates and charges were sufficient to recover an additional $20,309,899 over the annual revenue level produced by rates which were in effect prior to August 28, 1975.

On August 15, 1977, Appalachian did submit to the Commission, Original Sheets of its P.S.C. W.Va. Tariff No. 3, cancelling its P.S.C. W.Va. Tariff No. 2, effective August 28, 1975 through April 30, 1976. Likewise, on August 15, 1977, Appalachian filed First Revisions of Original Sheets of its P.S.C. W.Va. Tariff No. 3, for service on and after May 1, 1976. The Tariffs were inspected by the Commission and were found to be generally in compliance with our

Orders of May 6, 1977 and July 29, 1977, except in the following instances:

(1) *Original Sheet No. 3-6 and First Revision of Original Sheet No. 3-6.*

Use of Energy by Customer

The paragraph beginning, "the customer shall install . . ." is not in compliance with the requirements of our Order dated May 6, 1977. This paragraph should be changed to read as follows:

> The customer shall install only motors, apparatus or appliances which are suitable for operation with the character of the service supplied by the Company, and which shall not be detrimental to same, and the electric power must not be used in such a manner as to cause unprovided for voltage fluctuation or disturbances in the Company's transmission or distribution system. While the Company may be the initial judge as to the suitability of apparatus or appliances, and also as to whether the operation of such apparatus or appliances is or will be, detrimental to its general service, the Public Service Commission of West Virginia shall be the proper forum for settling any disputes under this section which cannot be satisfactorily settled between the Company and its customer.

(2) *Original Sheet No. 3-6 and First Revision of Original Sheet No. 3-6.*

Domestic Service

The last sentence of the second paragraph should be changed to read as follows:

> Larger motors may be served when, in the Company's initial judgment, the existing service facilities of the Company are adequate; however, the Public Service Commission of West Virginia shall be the proper forum for settling any disputes under this section which cannot be satisfactorily settled between the Company and its customer.

(3) *Effective Dates*

The Tariff submitted by Appalachian for service on and after May 1, 1976, indicated that it was "Effective: October 1, 1977". The Commission finds this to be in error, and in view of our Order dated August 26, 1977 which reopens this case for limited purposes, such Tariff Schedules should be changed to read:

Effective: May 1, 1976 through April 30, 1977.

Except for the items pertaining to terms and conditions of service and effective dates of Tariffs, as hereinabove discussed, the Tariffs filed by Appalachian on August 15, 1977 are found to be in compliance with our Orders of May 6, 1977 and July 29, 1977.

IT IS THEREFORE, ORDERED that the rates and charges set forth in the Tariffs submitted by the respondent on August 15, 1977, shall be placed in effect on the dates specified in the aforementioned Commission Order of May 6, 1977.

IT IS FURTHER ORDERED, that Appalachian shall file Revised Schedules reflecting the terms and conditions of service and effective dates hereinabove prescribed within ten (10) days of the date of this Order.

IT IS FURTHER ORDERED, that the sixty (60) day maximum period allowed to the respondent, Appalachian Power Company to complete its refunds to its customers as set forth in paragraph five of the "ORDER" section of our order of May 6, 1977, and paragraph C of the "ORDER" section of our order of July 29, 1977, shall begin to run as of the date of this order.

Chairman McDonald, deeming himself disqualified, took no part in the consideration or decision of this matter.

A COPY.

TESTE:

s/ S. Grover Smith, Jr.
S. GROVER SMITH, JR.
Secretary

PUBLIC SERVICE COMMISSION
OF WEST VIRGINIA
CHARLESTON

At a session of the PUBLIC SERVICE COMMISSION OF WEST VIRGINIA at the Capitol in the City of Charleston on the 13th day of January, 1978.

CASE NO. 8182 (Reopened)

APPALACHIAN POWER COMPANY, a corporation.

In the matter of increased
rates and charges.

PROCEDURE

On March 31, 1975, APPALACHIAN POWER COMPANY, a corporation (hereinafter "APPALACHIAN"), filed its tariff designated P.S.C. W.Va. No. 3, cancelling P.S.C. W.Va. No. 2, stating increased rates and charges and certain modified rate designs for furnishing electric service in the entire territory served by it in the State of West Virginia, to become effective May 1, 1975. The filed tariff was suspended by order of the Commission and went into effect, subject to refund, on August 28, 1975. After hearings in July and August, 1975 and January, April, June, July and August, 1976, and after the filing of briefs in November, 1976, the Commission issued its decision in this case by order dated May 6, 1977.

On May 16, 1977, APPALACHIAN filed a petition for rehearing, reopening of the record, and reargument, along with affidavits of various officers and employees of APPALACHIAN and its affiliates. Only July 29, 1977, the Commission issued an order "denying in part and granting in part" APPALACHIAN'S petition, and on August 25, 1977, the Commission issued an additional order which reopened the record in Case No. 8182 for the purpose of taking further evidence in order to enable the Commission to determine the reasonableness of a "third-tier" rate level, effective May 1, 1977, on the basis of increased coal costs.

Proper notice was given and a hearing was held on October 27, 1977. At that hearing, APPALACHIAN was represented by Samuel M. Sugden and David M. Flannery, Attorneys at Law. The Staff was represented by Clement R. Bassett and George Zivkovich, Attorneys at Law, Legal Division; David J. Ellis, Robert C. Stier and Herlman Gibson, Division of Accounts, Finance and Rates; and C. William Wensyel, Division of Engineering. Attorneys for various intervenors were: T. D. Kauffelt, representing FMC Corporation; Michael T. Chaney, representing the City of Charleston and the City of South Charleston; John C. Lobert, representing ACF Industries, Inc., American National Rubber Company, Houdaille Industries, Inc., Huntington Alloys, Inc., Chemtron Corporation and Owens-Illinois, Inc.,; Robert Carr, representing the City of Princeton and Robert R. Rodecker, representing Appalachian Research and Defense Fund, Inc., Mercer County Economic Opportunity Corporation and McDowell County Consumer Action Council, Inc.

Company testimony was adduced from four witnesses and staff testimony from two witnesses.

Certain data requests made during the hearing, designated Respondent's Exhibits 1-B, 1-C, 1-D, and 1-E were received on November 7, 1977. APPALACHIAN'S brief was filed on November 28, 1977.

ISSUES

This proceeding is limited to the question of the propriety of the Commission's establishment of a "third-tier" rate level, effective May 1, 1977, in recognition of APPALACHIAN'S increased coal costs over those cost levels reflected in the Commission's Order of May 6, 1977. In that Order the Commission established two rate levels, based on two separate costs of service. The "first-tier,"

effective August 28, 1975 through April 30, 1976 provided for a revenue increase of $15,380,249 over rate levels effective prior to August 28, 1975 and included coal expense of $1.00 per Mbtu. The "second-tier," effective on and after May 1, 1976, provided for a revenue increase of $20,309,899, and included an allowance for coal expense at $1.04 per Mbtu.

APPALACHIAN presented evidence that "per books" coal costs were as follows:

	COST PER MBTU $
May, 1977	1.14
June, 1977	1.15
July, 1977	1.19
August, 1977	1.22
September, 1977	1.28

APPALACHIAN'S witness further estimated coal costs for October, 1977 at $1.33, a level which was projected to remain constant through the end of 1977. APPALACHAIN'S Exhibit 1-B, filed November 7, 1977, reflected actual October, 1977 coal costs as $1.32 per Mbtu.

APPALACHIAN did not specifically offer testimony as to the level of coal expense that should be reflected in a "third-tier" cost of service; but rather, presented testimony that an additional allowance for coal costs of $19,517,000 would be required for the period May, 1977 through February, 1978. The calculation of this number was based on a comparison of actual May through September, 1977 coal costs and projected October, 1977 through February, 1978 costs for the $1.04 per Mbtu reflected in Commission approved "second-tier" rate levels. APPALACHIAN used a heat rate of 9,500 Btu per

Kwh, a 7½% line-loss factor and a 3% hydrogeneration factor to convert its coal costs per Mbtu to a rate requirement per Kwh sold. Since the company filed rates in Case No. 8182 would produce approximately $17,000,000 over and above Commission approved "second-tier" rate levels during the same period, it is the company's position that the Commission should approve its originally filed rate levels, effective May 1, 1977.

Staff Exhibits were generally in agreement with the company's Exhibits with regard to the "per books" cost of coal in the months of May, June, July and August, 1977. Staff, however, took the position that APPALACHIAN'S book costs included coal purchased from affiliates at cost levels which were too far above nonaffiliated costs to be dismissed by the Commission in this proceeding. Staff Exhibits show that from May, 1976 through April, 1977, the differential between total book costs and coal costs at levels of purchases from nonaffiliates, ranged from 1.3¢ per Mbtu to 8.9¢ per Mbtu, with the average differential being 4.7¢ per Mbtu. Staff Exhibits further show that from May through August, 1977, the excess of booked coal costs including higher priced affiliated coal over cost levels of coal purchased from nonaffiliates continued to widen to a level of approximately 12¢ per Mbtu. In August, 1977 the weighted average cost of coal per books was $1.23 per Mbtu, whereas coal purchased from companies not affiliated with APPALACHIAN POWER COMPANY cost an average of $1.11 per Mbtu.

A review of the montly coal purchase summaries, which were set up by this Commission as a result of legislative requirements, clearly shows the growing disparity between APPALACHIAN'S purchases from affiliates and nonaffiliates during the last half of 1976 and the first half of 1977.

The question of the cost level of APPALACHIAN'S purchases from its affiliates, and the extent to which excess affiliated costs over non-affiliated should be reflected in rates, was not first raised in this proceeding. For many years prior to this Commission's dissallowance of automatic fuel adjustment clauses, APPALACHIAN was required to reflect coal costs based on nonaffiliated prices only in calculating its fuel cost adjustment in West Virginia. The record in this case is clear that APPALACHIAN was not allowed to recover all of this affiliated coal costs in the State of West Virginia in 1977 because of the excess of affiliated cost over nonaffiliated cost. For many years, the Commission has been told by APPALACHIAN that coal produced by its affiliates should be available to APPALACHIAN at prices that are the same or lower than coal purchased from nonaffiliates. In our Order in Case Nos. 7930, 8354, 8358, and 8359, the Commission discussed at length the disparity between purchases from affiliates and nonaffiliates. In our Order in Case No. 8182, we expressed our concern that representations of "same or lower priced" coal from affiliates were not being actually experienced by APPALACHIAN POWER COMPANY. While we agree, as pointed out by APPALACHIAN in its brief, that we have in the past acted favorably with regard to APPALACHIAN'S expansion of its coal mining affiliates, it has always been after consideration of the company's repeated assurances of its ability to purchase its affiliate's coal output at costs which compare favorably to costs available from nonaffiliated suppliers.

In contrast to "per books" costs as previously outlined, the Staff presented evidence which showed that APPALACHIAN'S average cost of coal purchased from nonaffiliates was as follows:

	COST PER MBTU $
May, 1977	1.05
June, 1977	1.05
July, 1977	1.09
August, 1977	1.11

Based on this data, the Staff recommended that the Commission provide a third-tier of rates effective May 1, 1977 which departed from the previously approved "second-tier" rate level only to the extent of raising the coal expense included in the cost of service from $1.04 per Mbtu, to $1.08 per Mbtu.

The Commission agrees with the Staff position that the Company must be held accountable for higher costs of affiliated coal; and that requiring West Virginia ratepayers to reimburse APPALACHIAN for its purchases from affiliates, regardless of their cost level, would be a disincentive to prudent and efficient operation of the coal mining affiliates. On the other hand, we must recognize that the rates established herein are for the "locked-in" period from May 1, 1977, until the rates go under bond in Case No. 9091, and should be sufficient to allow APPALACHIAN POWER COMPANY to recover reasonable costs incurred under the regulation of a competitive market place. We will therefore approve a "third-tier" rate level, effective May 1, 1977 which includes an allowance for coal expense at a level of $1.16 per Mbtu. (See Appendix A).

Cost of service components and revenue deficiency are set forth in Appendix A. Staff has prepared rate schedules in Appendix B in conformity with the findings and conclusions set forth in this decision.

FINDINGS

1. Respondent's rates and charges last approved by this Commission are unjust and unreasonable in that they will not produce sufficient revenues to enable the Respondent to pay its reasonable and necessary operating expenses and taxes, provide for depreciation, and earn a fair return on its property used and useful in its public service business for the period beginning on and after May 1, 1977 and until the rates go into effect in Case No. 9091.

2. Respondent's rates and charges, now in effect under bond, are likewise unjust and unreasonable in that they would produce more revenues than are needed for the aforesaid purposes and period.

3. The rates and charges hereinafter approved are just and reasonable in that they should produce revenues sufficient, but not more than sufficient, for the aforesaid purposes and period. (Appendix B).

ORDER

1. The rates and charges that Respondent now has in effect under bond for the above said period are hereby cancelled and stricken from the tariff files of the Commission.

2. The rates set out in Appendix B that is hereto attached, be approved, to become effective May 1, 1977.

3. The Respondent shall refund to the person or parties entitled thereto, within sixty days (60) days of the date of this order, the amount of excess collected under the rates placed into effect under bond, and the amount which would have been collected under the rates that are herein approved, with interest at the rate of seven and three-

quarters per cent (7¾%) per annum, until paid; that refunds of Five Dollars ($5.00) or less may be made by crediting the amount to the subscriber's account, and that as to amounts in excess of Five Dollars ($5.00), the refund shall be made by check.

The Respondent shall report to the Commission the amount refunded, including the interest, the manner of refunding, and the amount if any, which it has been unable to refund.

4. Respondent shall file with the Commission, within fifteen (15) days from the date of this order, tariff sheets stating its rates and charges as specified herein.

5. Chairman McDonald, deeming himself disqualified, took no part in the consideration or decisions of this Case.

A COPY

TESTE:
Freeda P. Jones
Acting Secretary

APPENDIX A

APPALACHIAN POWER COMPANY

CASE NO. 8182 (REOPENED)
COST OF SERVICE COMPONENTS AND REVENUE DEFICIENCY PER COMMISSION ORDER
TEST YEAR 1974
WEST VIRGINIA OPERATIONS
THIRD TIER

A. Cost of Service Components

	Operating Revenues	Operating Expenses	Depreciation And Amortization	Taxes Other Than Federal Income Tax	Average Rate Base
	$	$	$	$	$
As Adjusted for Period From April 30, 1976 thru April 30, 1977 ..	176,075,074	111,317,884	17,334,859	16,216,009	488,976,907
Adjustments:					
Coal Expense 1.16¢ per MBTU ...		9,127,299			
As Adjusted	176,075,074	120,445,183	17,334,859	16,216,009	488,976,907

B. Cost of Service and Revenue Deficiency

Allowance for Return 9.35%	$ 45,719,341
Operation and Maintenance Expense	120,445,183
Depreciation and Amortization	17,334,859
Federal Income Tax.	4,596,410 *
Other Taxes — Before Additional Business & Occupation Tax	16,216,009
Additional Business & Occupation Tax	1,654,969 *
TOTAL COST OF SERVICE	$205,966,771
REVENUE DEFICIENCY	$ 29,891,697

* Calculated after other adjustments.

APPENDIX B

APPALACHIAN POWER COMPANY

CASE NO. 8182 (REOPENED)

	Approved Rates Effective May 1, 1977 ¢/Kwh
Tariff C.L.P. (Combined Light & Power)	
Primary (50 x Capacity)	
Secondary (Excess over Primary)	
First 5,000 Kwhrs	
Next 5,000 Kwhrs	Discontinued
Over 10,000 Kwhrs	
Minimum Charge	
Tariff R.S. (Residential Service)	
First 30 Kwhrs per month	6.025
Next 40	5.583
Next 130	3.773
Next 300	2.755
Next 1,000	2.416
Over 1,500	2.189
Minimum	$ 2.50
Water Heater Service	
Last 400 Kwhrs per month	2.189
Tariff G.S. (General Service)	
50 x Monthly Demand	
First 30 Kwhrs	6.737
Over 30	5.324
Next 150 x Monthly Demand	
First 3,000 Kwhrs	3.796
Over 3,000	2.778
Over 200 x Monthly Demand	2.212
Minimum Charge	$ 2.50

	Approved Rates Effective May 1, 1977 ¢/Kwh
Tariff C.I.P. (Commercial-Industrial) formerly C.P.O. (Capacity Power-Optional)	
First 30 x Monthly Demand	6.064
Next 170 x Monthly Demand:	
First 3,000 Kwhrs	3.496
Next 3,000	3.271
Next 4,000	3.044
Next 10,000	2.818
Next 80,000	2.592
Over 100,000	2.365
Next 160 x Monthly Demand	1.924
Over 360 x Monthly Demand	1.698
Minimum Charge	$ 2.00/Kva
Tariff P.S.O. (Public School-Optional)	
All Energy	3.910
Minimum Charge	$ 2.50
Tariff E.H.G. (Electric Heating General)	
First 200 Kwhrs	4.475
Next 6,800	2.778
Over 7,000	2.439
Each KW Demand in Excess of 30	$ 1.42
Minimum Charge	$ 8.74
Tariff S.S. (School Service)	
First 500 Kwhrs per Classroom	3.910
Balance	1.873
Minimum Charge	$ 2.50
Tariff C.S. (Church Service)	
First 40 Kwhrs per month	6.737
Next 85	5.606
Next 375	4.136
Next 500	3.118
Over 1,000	2.778
Minimum Charge	$ 2.50

	Approved Rates Effective May 1, 1977 ¢/Kwh
Tariff C.P. (Capapcity Power — Wholesale)	
100 x Contract Capacity:	
100 x First 50 Kva	4.640
100 x Next 50 Kva	4.186
100 x Next 50 Kva	3.055
100 x Next 150 Kva	2.830
100 x Over 300 Kva	2.603
Excess of 100 x Capacity:	
First 50,000 Kwhrs	2.592
Next 50,000	2.478
Next 200,000	2.365
Over 300,000	2.310
Minimum Charge	$26.80
Tariff T.P. (Transmission Power)	
For 34.5-69 KV Delivery Voltage	
First 25,000 KVA Demand	$ 6.250
Over 25,000 KVA Demand	$ 5.978
For 138 KV Delivery Voltage	
First 25,000 KVA Demand	$ 6.092
Over 25,000 KVA Demand	$ 5.922
Secondary — All Voltage	
Energy in Excess of 300 Kwhrs per KVA Demand	$ 0.01467
Tariff L.P. (Large Power)	
First 30 x Monthly Demand	6.061
Next 170 x Monthly Demand:	
First 3,000 Kwhrs	3.493
Next 3,000	3.268
Next 4,000	3.041
Next 10,000	2.814
Next 80,000	2.589
Over 100,000	2.362
Next 160 x Monthly Demand	1.921
Over 360 x Monthly Demand	1.695
Minimum Charge	$ 1.45

	Approved Rates Effective May 1, 1977 ¢/Kwh
Tariff L.C.P. (Large Capacity Power)	
First 1,000 KW Monthly Demand	$ 7.773
Next 3,000	$ 7.219
Over 4,000	$ 6.642
Energy in Excess of 315 Kwhrs Per KW Demand	$ 0.01613
Reactive Demand Charge	$ 0.28
Tariff I.R.P. (Interruptible Power)	
Demand Charge:	
KW Demand	$ 0.755
KVAR Demand	$ 0.28
Energy Charge	$ 0.1524
Tariff H.L.P. (High Load Factor Power)	
For 34.5-69 KV Delivery Voltage	
First 67,000 KW Demand	$10.420
Next 33,000 KW	$10.149
Over 100,000 KW	10.012
For 138 KV Delivery Voltage	
First 67,000 KW Demand	$10.329
Next 33,000	10.091
Over 100,000	9.956
Secondary — All Voltage	
Energy in Excess of 600 Kwhrs per KW Demand	$ 0.01425
Demand Charge	0.28
Tariff O.L. (Outdoor Lighting)	
Each 7,000 Lumen Mercury	$ 5.37
Each 11,000 Lumen Mercury	6.99
Each 20,000 Lumen Mercury	8.76
Each 2,500 Lumen Incandescent	4.06
Each 4,000 Lumen Incandescent	4.94
Each 7,000 Lumen Mercury on 12' Post	6.17

	Approved Rates Effective May 1, 1977 ¢/Kwh
Rider A (Credit Surcharge) Credit applied to RS, GS, CS, CP, CIP, EHG, TP, SS, LP, LCP, IRP & HLP for each Kwh used	
Tariff R.E. (Rural Line Extension)	
Tariffs Applied	Applicable Tariff
Minimums:	
Per Customer Per Month	$ 4.00
Per Mile Per Month	18.50
Minimum Excluded if Gross Annual Revenue Per Mile Exceeds	$775.00
Tariff T.S. (Temporary Service)	
Tariffs Applied	Applicable Tariff
Special Terms	Available